MISCELLANEOUS MATTER

OF THE

BOTANICAL REGISTER.

1845.

1. CROCUS Damascenus.

C. *Damascenus*; c. tun. vaginaceis membranaceis non reticulatis tenuibus fugacibus interioris basi fibris setosis tenuibus radiatis peraistente, foliaceâ exteriore longè et tenuiter usque ad basim prope fundum affixam reticulatâ, (in obsoletis demum fibrosâ) interioribus omnibus parvulis in ipso vertice sitis, vaginâ interiore acutâ exsertâ, tertiâ subterraneâ, foliis 3-4 angustis lævibus hysteranthiis, scapo nudo, germine albido, spathâ vix inclusâ bracteam tubum involventem non tubatam parum superante, perianthii tubo 1½ unc. exserto saturatè purpurâ sexstriato, limbo griseo-cœrulescente fauce lævi petalis sepala extus plumeo-tristriata 1½ unc. vix æquantibus, stylo albicante stigmatibus profundè furcatis erectis, filamentis albis lævibus circ. ⅔ unc., antheris pallidè luteis, ⅝ unc. apice curvato stylum superantibus, capsulâ longâ superne purpurâ striatâ et suffusâ, seminibus purpureo-rufis oblongo-ovatis raphe productâ concolore. *Ex montibus aridis calcareis prope Damascum effossus apud me Septembri ante ortum foliorum floruit. Longioribus et tenuioribus reticuli maculis et tunicâ ad basim ipsam reticulatâ neque, ut in C. reticulato auri-striato, variegato, et albicante, inferne rigidè parallelo-fibrosâ primo aspectu discernitur; stylo, staminibus, et bracteâ differt; cætera satis conformis. In Damasceno et variegato ex aridis persistunt tunica foliacea exterior et basis radiata vaginaceæ interioris quorum* 20-30; *apud nos humiditate citò depereunt.*—W. H.

For the knowledge and possession of this plant I am indebted to J. Cartwright, Esq. and the Vice-Consul at Damascus. The bulbs were taken up in February and in May, the period of flowering not being mentioned. Its affinity to

the variety of the vernal C. reticulatus called variegatus, which grows in Lippiza forest near Trieste, is evident; but it produced its flower at Spofforth in September before the leaf, which immediately followed its decay. No yellow Crocus having been sent from Damascus, this is probably the plant of which the roots are eaten by the natives. The hills near Damascus are the most southern habitation of Crocus yet ascertained. The summit of Lebanon with which they are connected being 9520 feet high, they are probably very elevated.— *W. H.*

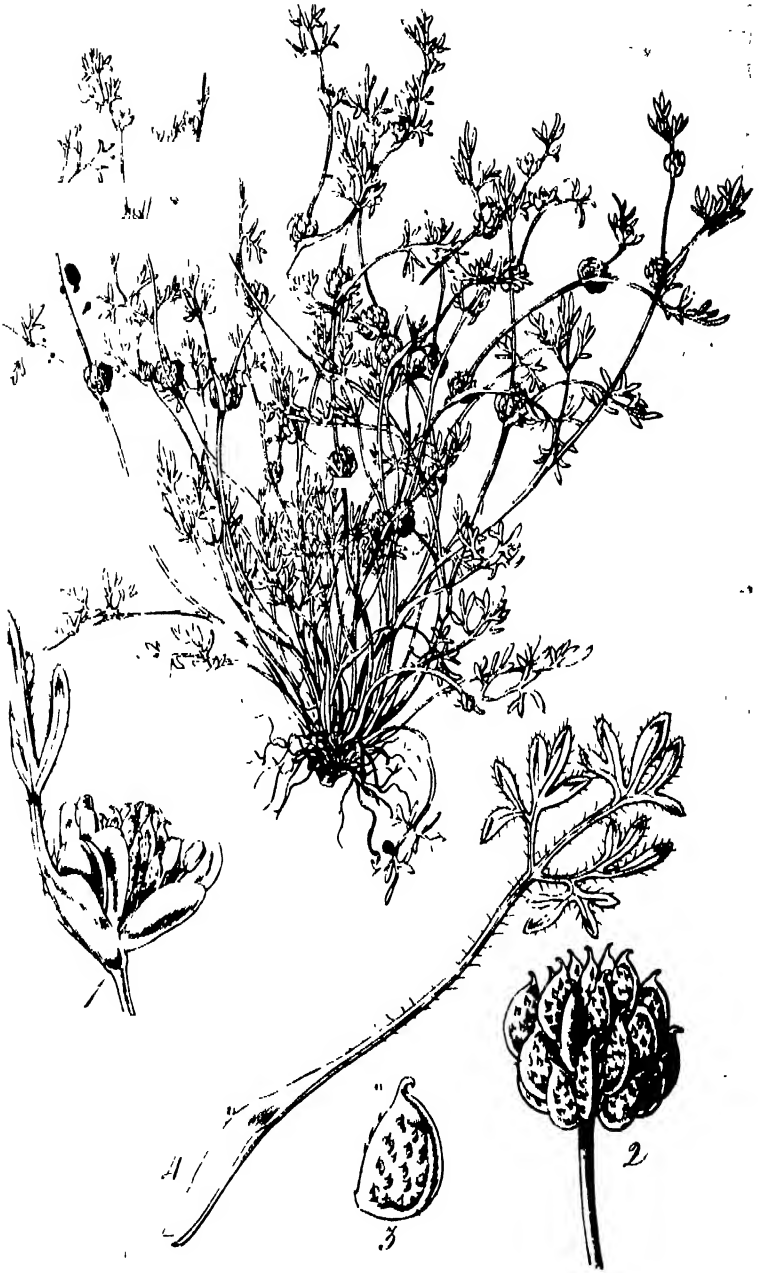
2. CROCUS intromissus.

C. *intromissus*; (*forsan C. sativus, var. intromissus*) cormo pyriformi, tunicis pallidè purpureo-brunneis (ut in sativo) vaginaceis fibris submollibus tenuibus parallelis superne reticulatim confluentibus duâbus pariter ferè ad cormi basim tertiâ internâ parum supra affixis, foliaceis similibus dimidiatis vel spiræ modo connatis apice multifido complanato submolli, exteriore medio cormo vel supra cæteris gradatim altiùs affixis, foliis quatuor suberectis lævibus. *Cormus unicus cum C. Damasceno effossus est tunicis annorum quinque integris et maturæ magnitudinis octonis igitur natalibus vel ultra, absque cormorum incremento, satis tunicas sativo similis, multo minor, foliis paucis lævibus. Flos, adhuc ignotus vernus forsitan eveniet. Sativo incrementum abundans est, folia ciliata permulta,* 11-12.—*W. H.*

3. CROCUS vallicola.

C. *vallicola*; flore autumnali, spathâ (ebracteatâ ?) circiter sesquiunciam exsertâ, perianthio albo $1\frac{3}{8}$ unc. acuto maculis binis luteis in laciniæ cujusque regione inferiore, sepalis vix $\frac{3}{8}$ unc. latis, petalis parum angustioribus, tubo ultra unciam libero superne ultra $\frac{1}{4}$ unc. ampliatè producto, filamentis albis $\frac{1}{4}$ unc. antheris semuncialibus (nî fallor in sicco) albis ? stigmata sæpissimè apice bifida ferè æquantibus, stylo pallidè subaurantiaco gracili. *Foliis hysterânthiis et cormo nondum visis; filamentis cum fauce, ni fallor in sicco, lævibus. In societate Croci cujusdam cærulescentis sub fine Octobris floret, in convalle monticulosâ alpium Trapezunticarum ad pedes vallis orientalis summæ in monte Koulak Dagh dicto, ab hospitio primo in cacumine plus horæ unius itineris spatio a pago Stauros dicto accedenti.*

Stauros is situated in the province of Trebizond, on the road to Erzerum. The pass is not open till late in June, and the height of the Koolak mountain can scarcely be less than 5000 feet, if it be not greater. From the Croci found there I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TAB. DC.

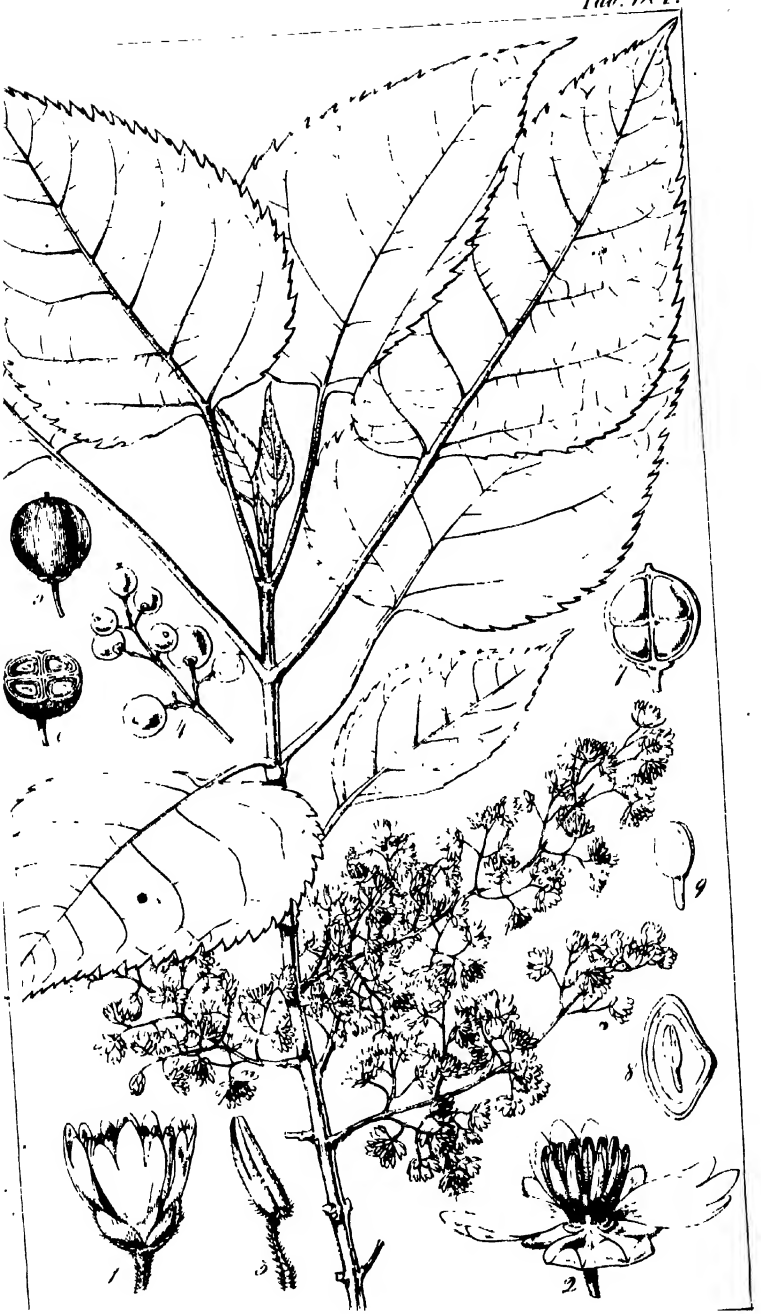
Ranunculus pilulifer. *n. sp.*

Humilis, annus, pilosus, caulibus filiformibus basi præcipue ramosis, foliis remotis longe petiolatis basi vaginantibus subtriternatim sectis, laciniis oblongo-ovatis acutis sæpe bifidis, floribus minutis axillaribus solitariis sessilibus, capitulis globosis, carpellis oblique ovatis compresso-carinatis rugosis stylo brevi uncinato terminatis.

Hab. Swan River settlement. *Jas. Drummond.* (*n.* 9.)

A small, but very distinct and well marked species of Crowfoot. The flowers are so minute that the real structure of the sepals and petals cannot, in the dried state, be correctly described; but they are succeeded by globose heads of carpels, which are very conspicuous upon the slender stems. Each carpel is wrinkled, scarcely tuberculate, laterally compressed, the back, or keel, forming a thickened edge.

Fig. 1. Flower. *f.* 2. Head of carpels. *f.* 3. Single carpel: —more or less *magnified.*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TAB. DCI.

Friesia racemosa. *A. Cunn.*

Dioica, foliis cordato-ovatis acuminatis longe petiolatis serratis, racemis compositis axillaribus, ramulis foliisque junioribus pubescenti-hirtis, stigmate 4-lobo.

Friesia racemosa. *A. Cunn. in Ann. Nat. Hist. v.* 4, *p.* 24.

Dicera? serrata. *Forst. Prodr. n.* 227. *De Cand. Prodr.* 1, *p.* 520. *A. Rich. Fl. Nov. Zel. p.* 301.

Elæocarpus Dicera. *Vahl, Symb.* 3, *p.* 67.

Hab. New Zealand, shady forests, Northern Island. *Sir J. Banks, A. Cunninghaan, Colenso, Edgerley, Bidwill, Sinclair, Dr. Hooker.* Middle Island, *G. Forster.*

The dicœcious nature of this plant does not seem to be noticed by any author: yet such is the fact. And at the time the accompanying figure was made, I did not possess the female flowers, only the male flowers and fruit. They have, however, since been brought home by Dr. Hooker; and exhibit small, barren stamens, an ovate germen, seated upon an annular disk with four glands, a tapering, deciduous style, and a four-cleft, spreading stigma. In this dicœcious character, in the four-cleft stigma and in the paniculated flowers, the plant differs from the original *Friesia* of De Candolle; but it agrees in all other essential particulars. It forms a shrub or small tree, 12-15 feet high, and is called *Mako-mako* by the natives.

Fig. 1. Male flower. *f.* 2. The same, more expanded. *f.* 3. Perfect stamen. *f.* 4. Portion of a fructiferous panicle; *nat. size. f.* 5. Fruit; a *bacca sicca. f.* 6. The same, cut open transversely. *f.* 7. The same, laid open vertically. *f.* 8. A seed laid open. *f.* 9. Embryo:—*magnified.*

TAB. DCII.

Elæocarpus Hinau. *A. Cunn.*

Foliis alternis petiolatis oblongis basi attenuatis coriaceis superne serratis subtus adpresso-sericeis nervis prominentibus, nervorum in axillis sæpe foveolatis superne bullatis, racemis axillaribus simplicibus, petalis trilobis, antheris apice inæqualiter bilabiatis, ovario biloculari, loculis biovulatis, drupa ovali monopyrena.

Elæocarpus Hinau. *A. Cunn. in Ann. Nat. Hist. v.* 4, *p.* 23.

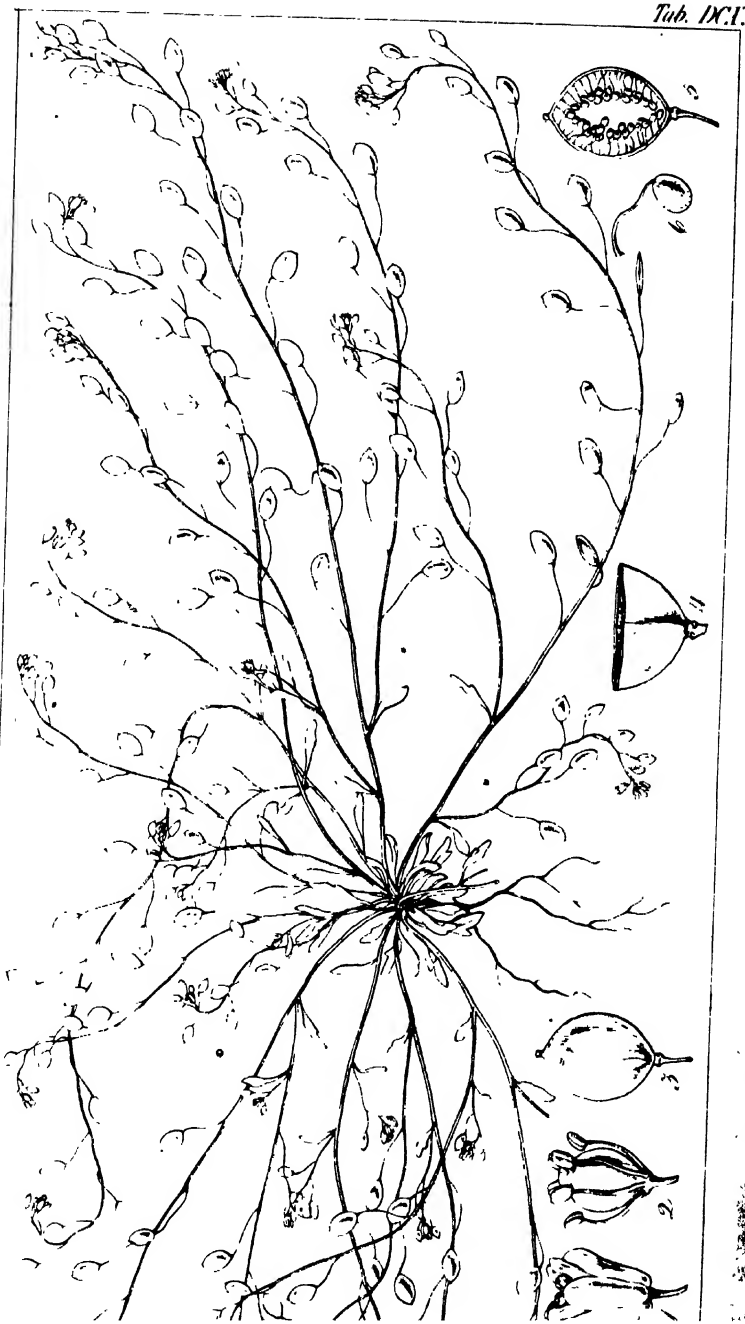
Elæocarpus dentatus. *Vahl. Symb.* 3, *p.* 67.

Dicera dentata. *Forst. Prodr. n.* 226, *De Cand. Prodr.* 1, *p.* 520. *A. Rich. Fl. Nov. Zel. p.* 303.

Hab. New Zealand, Northern Island, *Sir J. Banks, A. Cunningham, Colenso, Edgerly, Dr. Hooker.*—"*Hinau*" of the natives.

Of the genus *Dicera* of Forster, founded upon the present plant, but to which Forster added doubtfully, the *Dicera? serrata*, the *D. dentata* is by Vahl correctly referred to *Elæocarpus*, and the *D. serrata* by De Candolle to *Friesia* (See Tab. dci.); so that the only plant now remaining in *Dicera* is the very dubious *Craspedium tectorum*, of Loureiro. Of the plant here figured, Mr. Cunningham has given a very accurate description; but he describes the ovary as 5-celled, which I find to be 2-celled. The solitary fruit I possess is a drupe with one perfect seed. "The wood of the *Hinau* is remarkable for its whiteness; but it is almost useless, on account of the way in which it splits when exposed either to wet or warmth. Its chief use is that it makes an excellent dye, either a light brown, puce, or dark black, not removable by washing. The natives employ the outer skin of the bark for the purpose of dying the black thread of their garments."—*Yates.*

Fig. 1. Flower. *f.* 2. The same, with the petals removed. *f.* 3. Stamen. *f.* 4. Pistil. *f.* 5. Ovary, cut through vertically. *f.* 6. The same, cut through transversely:—*magnified.*



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TAB. DCX.

STENOPETALUM ? PROCUMBENS. *Hook.*

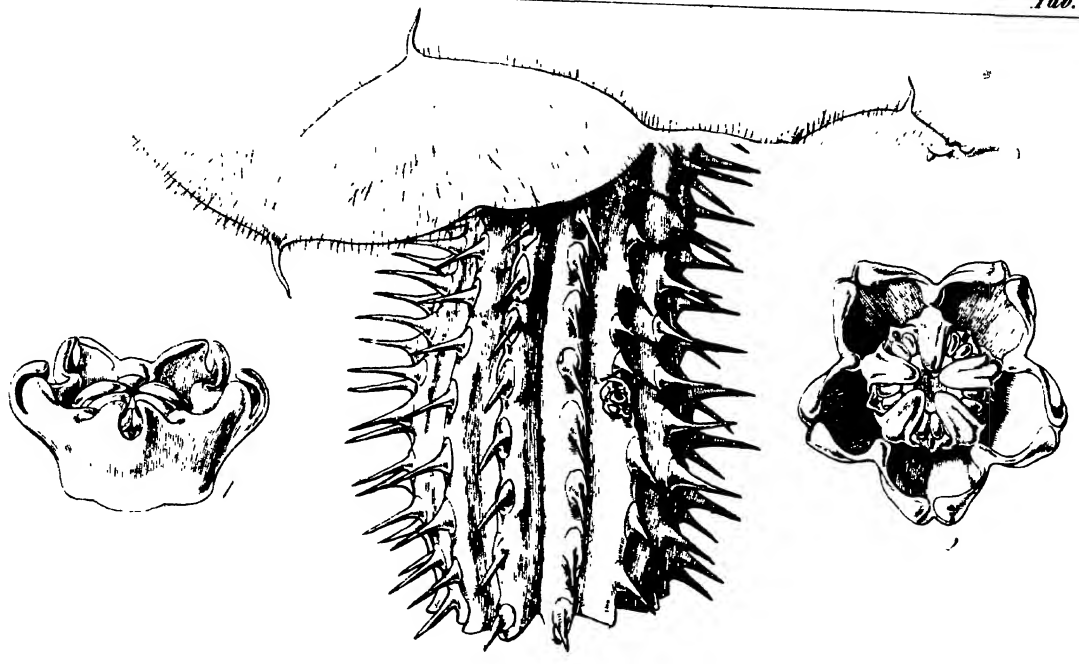
Annuum, caulibus procumbentibus ramosis filiformibus, foliis sparsis lineari-spathulatis radicalibus rosulatis incisis, floribus minutis, racemis demum valde elongatis, petalis linearibus obtusis subunguiculatis vix calycem superantibus, siliculis orbiculari-ellipticis compresso-planis stigmate sessili terminatis, dissepimento nullo, seminibus numerosis, podospermis longissimis.

HAB. Swan River, Australia. *Jas. Drummond,* (*Crucif. n.* 3.)

Radix parva, annua, fibrosa. *Caules* plurimi, filiformes, ramosi, procumbentes, spithamæi et ultra. *Folia* glabra, lineari-spathulata; *radicalia* inciso-dentata; *caulina* integerrima, remota. *Pedicelli* brevissimi, demum (fructiferi) elongati, gracillimi. *Calycis sepala* oblongo-obovata, obtusa, petalis angustis breviora. *Stamina* 6, didynama. *Ovarium* orbiculare, planum, stigmate capitato sessili terminatum. *Silicula* orbiculari-elliptica, compressa, glabra. *Dissepimentum* omnino nullum. *Semina* (vix matura) parva. *Podosperma* longissima, filiformia.

Notwithstanding the absence of dissepiment to the fruit, I am unwilling to separate this plant from *Stenopetalum,* Br., with which it sufficiently accords in other respects. In the old fruit, the filiform receptacle readily separates from the valves, as shown at fig. 5; and, in a more advanced stage, the seeds, with their stalks, fall away, leaving only the slender thread-shaped ring, tipped with the minute stigma.

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3. Silicula. *f.* 4. Transverse section of ditto. *f.* 5. The same, from which the valves have separated. *f.* 6. Seed and seedstalk:—*magnified.*



TABS. DCV., VI.

Scytanthus Currori. *Hook.*

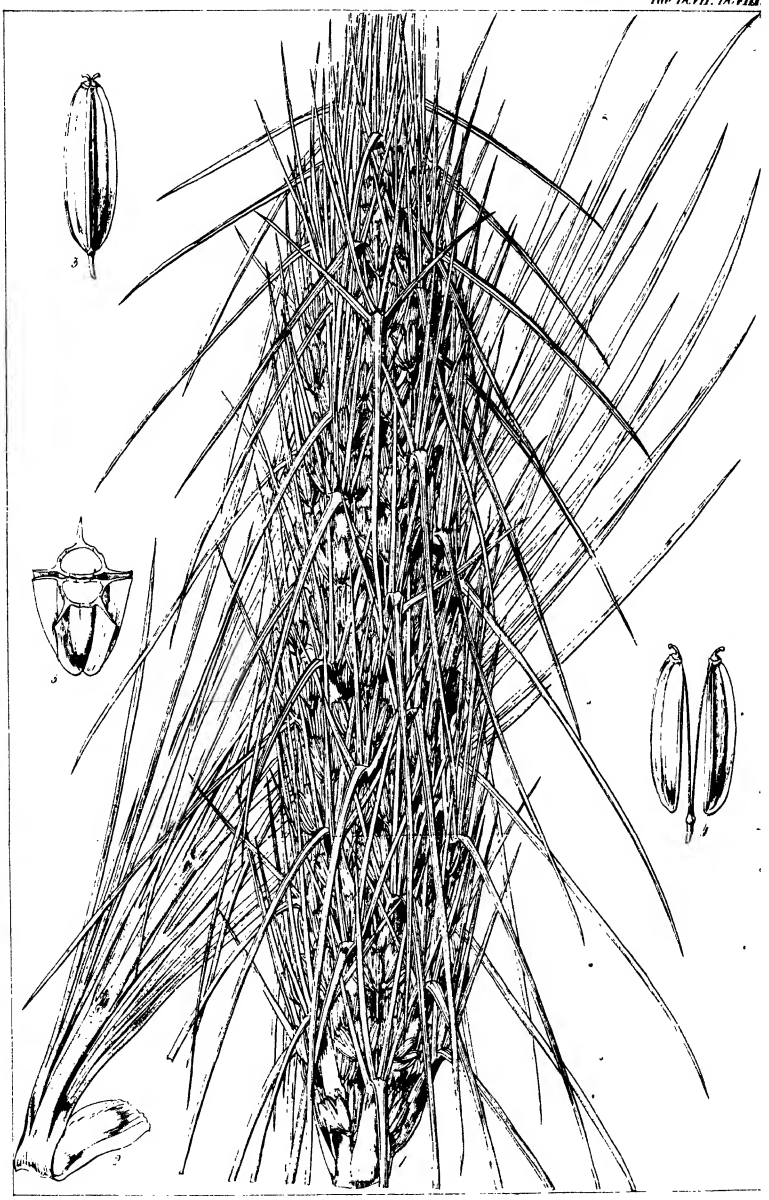
Gen. Char. Scytanthus, *Hook.*—*Cal.* 5-partitus. *Corolla* rotata, tubo brevissimo, limbo maximo dilatato concavo membranaceo nervoso obsolete 5-lobo, lobis dente aristiformi terminatis. *Columna fructificationis* inclusa. *Corona staminea* duplex; *exterior* quinquefida, lobis rotundatis erecto-incurvis obtusis bifidis, laciniis denteque in sinu inflexis; *interior* pentaphylla, foliolis e basi gibbosa oblongis obtusis in summitatem columnæ arcte adpressis, laciniis exterioribus alternantibus. *Antheræ* apice simplices, obtusæ. *Pollinia* basi affixa, erecta, ovata, sessilia. *Stigma* muticum. *Folliculi* 2 (immaturi) cylindracei utrinque acuminati, læves.—Plantæ *Africæ Australis carnosæ aphyllæ multangulatæ ramosæ, angulis aculeatis, aculeis basi dilatatis; versus apicem floriferæ.* Corolla *amplissima.*

Scytanthus *Currori*; corolla ciliata intus tota pilosa.

Hab. Barren, sandy mountains, but sparingly, at Elephant's Bay, West Coast of Africa, lat. 14 deg. S. *Dr. A. B. Curror.* R.N. 1840.

I have already, in the London Journal of Botany, v. 2, p. 166, taken occasion to mention the re-discovery, by Mr. Burke, on the banks of the Orange river, South Africa, of that most remarkable plant, *Stapelia Gordoni*, of Masson's "*Stapeliæ*," Tab. xl; which was only known to Naturalists by the figure there given, and was drawn on the spot by Colonel Gordon, and no specimen was preserved. This will be found represented at our Tab. dcxxv. of the present Volume. Still a correct knowledge of the organs of fructification was a desideratum which could not be gained from dried specimens; and it was with no small degree of pleasure that I received from Dr. Curror, of H.M.S. Water-Witch, a noble flowering specimen of another but nearly allied species, preserved in spirits, with a stem so much resembling that of some *Cactus* (of the *Cereus* group) that without the flowers, it might readily be mistaken for such. It is this plant that is here figured, and it is at once distinguished by the larger size of the stems and of the corolla, and the copious hairy lining of the latter. It attains a height of two feet and upwards in the stem, with a diameter of between two and three inches, the barren stems not unfrequently branched at the top. The whole plant is full of a viscid mucilaginous juice, which tastes like starch. There can be no doubt, I think, of the propriety of this, together with the *S. Gordoni*, Masson, constituting a distinct genus, which I have named, from the large size and general shape of the corolla, σκυτος, a *shield*, and ανθος, a *flower*. The specific name is in compliment to its discoverer, who has collected many interesting plants and animals while on the West Coast of Africa.

Fig. 1. Staminal crown; *side view.* *f.* 2. The same, seen from above. *f.* 3. Segment of the inner crown, with anther and pollen-masses. *f.* 4. Pollen:—*magnified.*



TABS. DCVII, DCVIII.

Aciphylla squarrosa. *Forst.*

Gen. Char. Aciphylla, *G. Forst.*—*Calycis margo* 5-dentatus dentibus deciduis vel demum obsoletis. *Petala* quinque, ovata, acuta, unguiculata, apice acumine inflexa. *Fructus* oblongus, sectione transversali subteres. *Mericarpia* dissimilia, hinc jugis 4, illinc jugis tribus, omnibus alte alatis, lateralibus marginantibus. *Valleculæ et commissura* multivittatæ.—Herba *elata, robusta, erecta, simplex (?), foliis repetitim digitato-divisis pubescentibus rigidis, laciniis elongatis longissime linearisubulatis pungentibus planis striatis, petiolis dilatatis.* Umbellæ *copiosæ axillares compositæ in spicam densam foliosam longissimam crassam; foliis floralibus minoribus plerumque quinato-divisis, lacinia media duplo triplove majore validiore, arcte reflexa.* Flores *polygami.*

Aciphylla *squarrosa. Forst. Gen. t.* 38.

Ligusticum Aciphylla. *Spreng. in Schult. Syst. Veget.* 6, *p.* 554. *De Cand. Prodr.* 4, *p.* 159. *A. Rich. Fl. Nov. Zel. p.* 274. *A. Cunn. in Ann. Nat. Hist.* 2. *p.* 212.

Laserpitium Aciphylla. *Linn. Fil. Suppl. p.* 181. *Forst. Prodr. p.* 22.

Hab. New Zealand, Middle Island; Shores of Queen Charlotte's Sound; *G. Forster.* Southern extremity of the Northern Island, in great abundance; and the alpine interior; *Mr. Bidwill.* Roratonga; *Mr. Colenso.*

One of the most remarkable of umbelliferous plants, with a dense flowering spike, often four feet high. Sprengel and De Candolle say of the fruit, "*mericarpia tricostata.*" In all the fruits that I have examined, one mericarp has 3 wings, the other four, or in other words, one wing is suppressed on one side of the fruit, 2 on the other; and Forster's character is, "*fructus pentagonus,*" which is quite correct; the approximate marginal jugæ forming together two out of the five angles or wings. This circumstance, together with a peculiar habit, has induced me to restore the old genus *Aciphylla.*

Fig. 1. Fructified spike. *f.* 2. Lower leaf; *nat. size. f.* 3. Fruit. *f.* 4. The same, separating. *f.* 5. Transverse section of the mericarps:—*magnified.*

TAB. DCXI.

Eucalyptus spathulata. *Hook.*

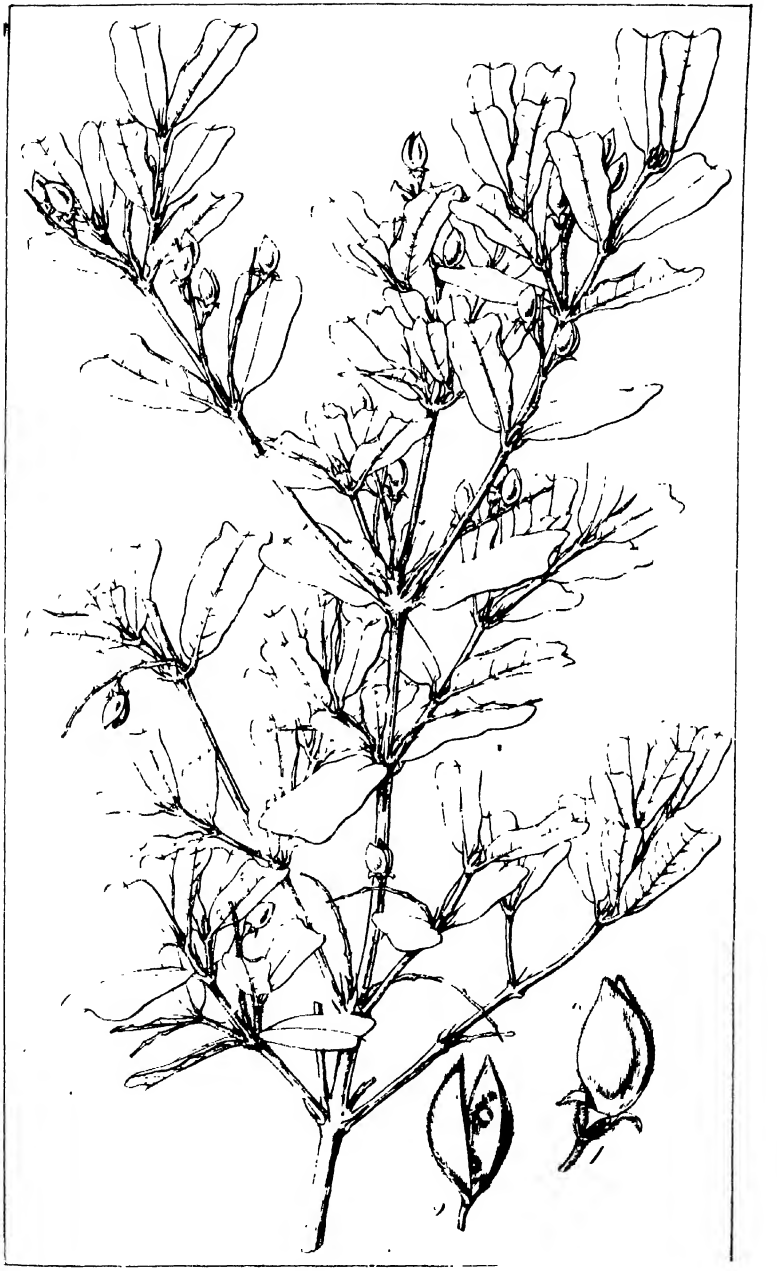
Operculo cylindraceo obtuso ovario turbinato triplo longiore, foliis lineari-spathulatis acutiusculis minute punctatis, pedunculis brevibus latis compressis 3-5-floris, floribus brevi-pedicellatis.

Hab. Swan River. *Jas. Drummond,* (*Suppl. Coll. n.* 20).

Frutex ubique glaber. *Rami* teretes fusci, ramulis angulatis. *Folia* opposita, bi-triuncialia, lineari-lanceolata, obtusa, basi attenuata, viridia, obscure uninervia, utrinque sub lente punctulata. *Pedunculi* solitarii, axillares, semiunciam longi, dilatati, compressi, apice umbellatim 3-5-flori. *Flores* brevi-pedicellati, pedicellis incrassatis sensim in ovarium turbinatum truncatum intense fuscum dilatatis. *Operculum* (siccitate) pallide fuscum, cylindraceum, obtusum, ovario triplo longius. *Stamina* numerosa, primum erecta, demum patentia. *Filamenta* subincrassata, fulva. *Antheræ* parvæ. *Stylus* rectus, staminum longitudine. *Stigma* simplex.

A species of *Eucalyptus*, not distributed, I believe, in the valuable sets lately sent to his subscribers from the Swan River settlement by Mr. Drummond, but forming part of a supplementary set transmitted to the Author. It is very different from any species with which I am acquainted, or can anywhere find described.

Fig. 1. Flower, still partially covered by its operculum. *f.* 2. Ovary and style :—*magnified.*



TAB. DCXII.

Oxylobium batillum. *Hook.*

Foliis oppositis elliptico-cuneatis apice truncato-retusis coriaceis, supra glabriusculis impresso-punctatis, subtus arcte reticulatis mucronatis ramulisque dense pubescentibus, legumine ovato-acuminato hirsuto dispermo.

Hab. Swan River settlement. *Jas. Drummond,* (*Suppl. Coll. n.* 32.)

I possess no flowers of this species; but there can be little doubt of the genus to which it belongs. The leaves are coriaceous, cuneate but rounded at the base, truncate or retuse at the apex, mucronate, the angles rather obtuse, the margins a little recurved; the upper side glossy and slightly pubescent, rough with numerous depressions, paler beneath, there closely reticulated, and, as well as the young branches, downy with short dense hairs. Legumes small, chestnut-brown, slightly hairy, 2-seeded. I have named the species *Batillum* from the resemblance of the leaves to a fire-shovel.

Fig. 1. 2. Legume:—*magnified.*

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TAB. DCXIII.

Rhodoplexia preissii. *Harv.*

Gen. Char. *Frons* spongiformis, rubra, e filis articulatis, reticulatim connexis, versus superficiem liberis constituta. *Sphærosporæ* sphæricæ, apicibus liberis filorum insidentes, pedicellatæ perisporio hyalino. *Harv.*

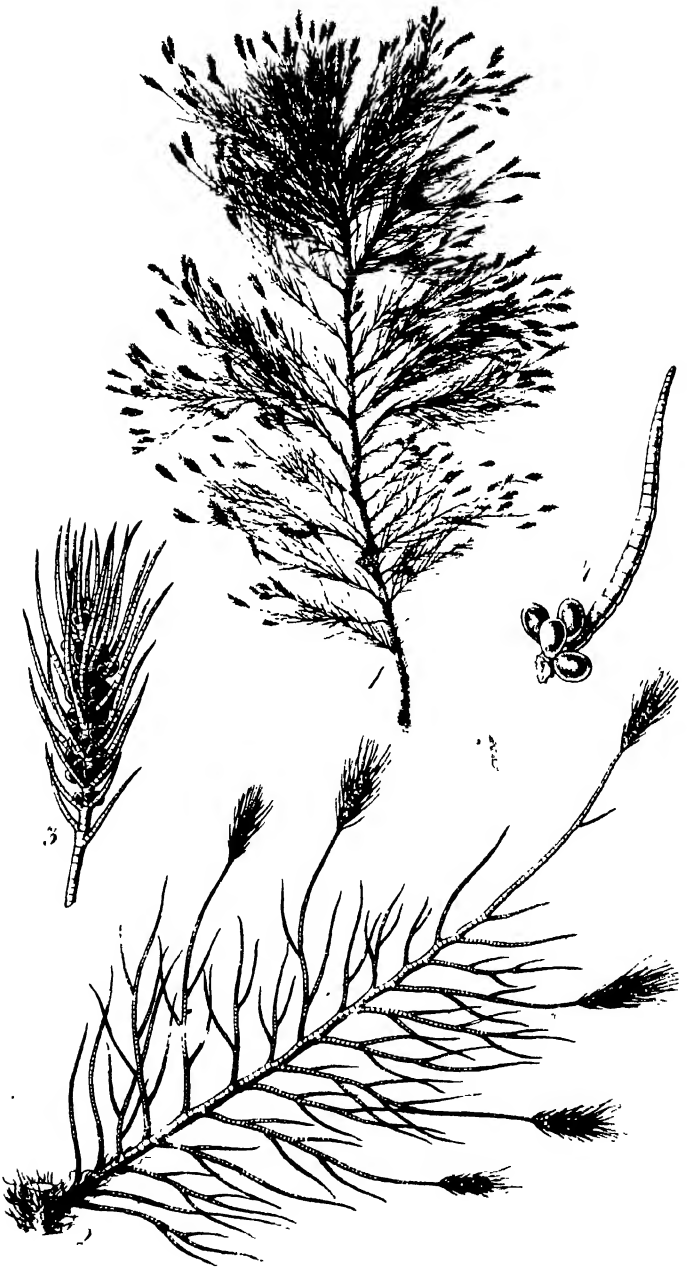
Rhodoplexia *Preissii. Harv. MSS.*

Hab. In the Sea. Swan River colony, New Holland. *Mr. Preiss.*

Frons compressa, 2-4 uncias longa, 4-6 lineas lata, ½ lineæ crassa, spongiosa, mollis, nec gelatinosa, irregulariter laciniato-ramosa, ramis plus minus dichotome divisis, axillis rotundatis, tota filis articulatis constituta. *Fila interna* in reticulo denso conjuncta, in modo subflabelliformi longitudinaliter disposita; *externa* v. *superficiaria* incurva, simplicia v. parum ramosa, lineam longa, e reticulo passim exeuntia et idem vestientia. *Color* fusco-ruber. *Sphærosporæ* omnino *Callithamnii.*

A highly remarkable plant, forming another genus of retiform *Algæ*, allied to *Dictyurus*, *Hemitrema* and *Claudea*, especially to the first; but here there is no stem, the whole plant being composed of a sponge-like network. W. H. H.

Fig. 1. Plant: *natural size.* *f.* 2. Transverse section of a narrow part of the frond. *f.* 3. Small fragment, *highly magnified*, to show the capsules, or *sphærosporæ.*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TAB. DCXIV.

Sphacelaria hordeacea. *Harv.*

Fronde tenui-elongata stuposa, ramis alternis crebris apice fasciculatis subbipinnatis, pinnis pinnulisque spinæformibus; capsularum spicis oblongis aristatis (hordeiformibus) terminalibus.

Hab. Bay of Islands, New Zealand. *Dr. Sinclair.*

A very curious species of *Sphacelaria*, allied to *S. scoparia*, but abundantly distinguished by the spikes of fructification which terminate the branches and ramuli, and under the miscroscope strongly resemble ears of barley or rye. These are composed of thickly set, quadrifarious, setiform ramuli, each with a cluster of 4-5 elliptical capsules at its base. W. H. H.

Fig. 1. Branch. *f.* 2. Spike of capsules *f.* 3. Ramulus of the spike, with capsules at its base :—*magnified.*

TAB. DCXIX.

EUCALYPTUS MACULATA. *Hook.*

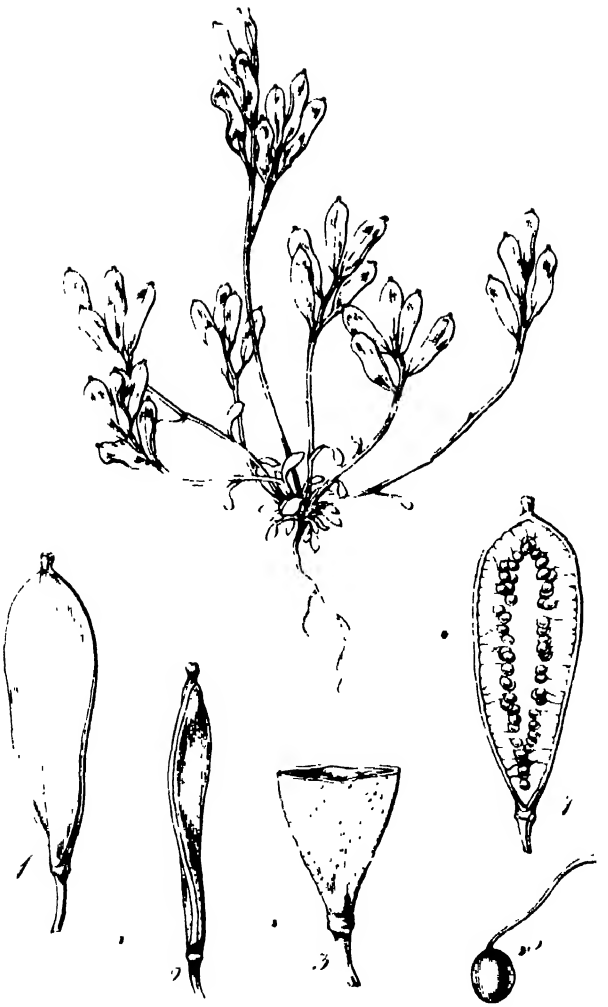
Arbor excelsa, trunco maculato, foliis alternis petiolatis lanceolatis longe acuminatis pellucido-punctatis purpureo-marginatis, nervis copiosis distinctis oblique patentibus, paniculis axillaribus terminalibusque parce ramosis folio brevioribus, operculo duplici, ext. conico-hemisphærico mucronato cupula subangulata breviore, int. (corolla) hemisphærico membranaceo nitido.

Eucalyptus sp. Spotted Gum. *Backh. mst. n.* 37.

HAB. Interior of N. Holland. *Fraser.* Maitland, Liverpool and Newcastle. *Backhouse.*

A large tree, Mr. Backhouse observes, of which the bark falls off in patches, giving it a spotted appearance. The timber is nearly equal to oak, but the sap or outer layers decay rapidly. The lid or operculum is double, inner one membranaceous; this inner one has justly been considered by Mr. Brown as the corolla, and it here forms an exactly hemisphærical glossy membranaceous cup, which often continues to adhere after the outer one has fallen away. "The gum from the tree contains benzoic acid." *Backhouse.*

Fig. 1. Cupula and style:—*magnified.*



TAB. DCXVII.

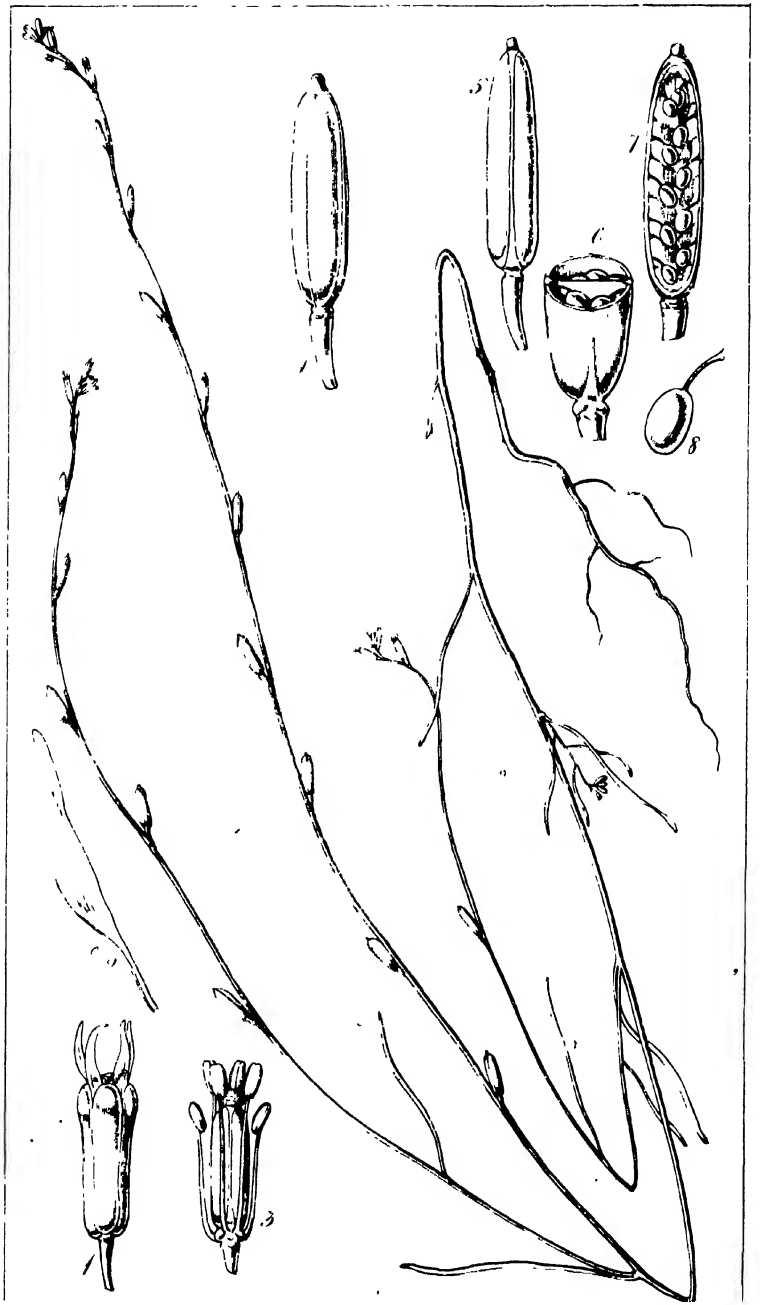
Stenopetalum draboides. *Hook.*

Annuum parvum pluricaule, caulibus erectis simplicibus parce foliosis, foliis lineari-spathulatis patentibus glabris integerrimis, racemo 4-5-floro, siliculis oblongo-obovatis compresso-planis subtortuosis unilocularibus (dissepimento nullo) minutissime puberuli-granulatis dorso basi obsolete uninervi stylo brevissimo terminatis, seminibus numerosis, podospermis longissimis.

Hab. Swan River settlement, Australia. *James Drummond*, (*Crucif. n.* 3.)

A small annual plant, (the flowers of which are unknown to me,) with quite the habit of *Draba* (or *Eriophila*) *verna*; but the leaves and stems are everywhere glabrous. Nor is the fruit in external appearance very dissimilar; larger, indeed, and longer, more coriaceous, becoming sensibly broader above, and slightly twisted; but within its structure is widely different, the membranous dissepiment, so common to the *Cruciferæ* in general, being here wholly wanting, and the numerous seeds being attached to exceedingly long podosperms. In these latter particulars the fruit exactly resembles that of our *Stenopetalum procumbens*, (Tab. dcx. of the present volume), from which, again, the size of the plant, stouter stem and shape of the fruit, will at once distinguish it.

Fig. 1. Siliculæ. *f.* 2. Side view of the same. *f.* 3. Transverse section of the same. *f.* 4. The same, with the valve removed. *f.* 5. Seed and seedstalk:—*magnified.*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TAB. DCXVIII.

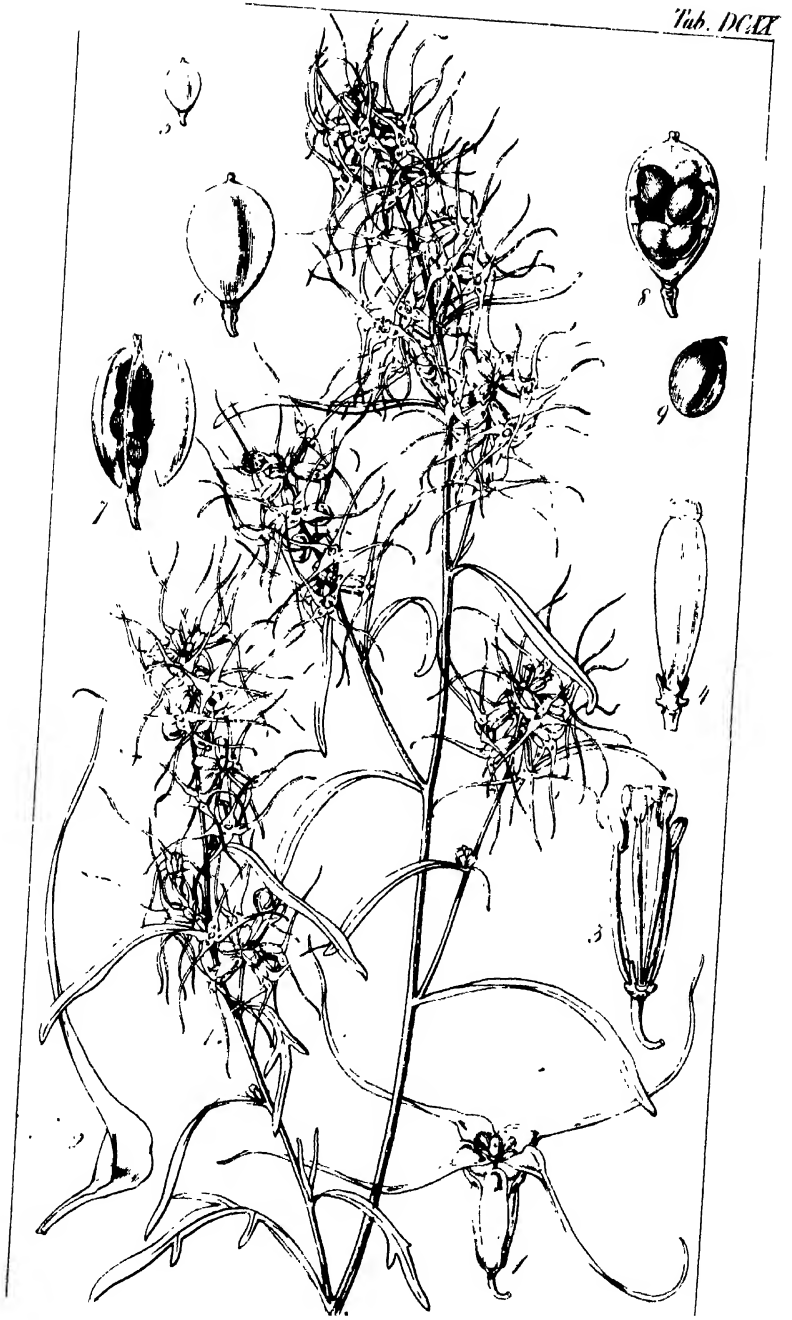
Stenopetalum lineare. *Br.*

Annuum glaberrimum erectum parce ramosum, caule solitario, foliis remotis elongatis linearibus integerrimis, racemis fructiferis longissimis, sepalis lato-linearibus obtusis, petalis calyce longioribus lineari-oblongis et attenuatis longe unguiculatis, siliculis valde remotis brevissime pedicellatis erectis oblongis tereti-compressis bilocularibus valvis medio uninervibus, stylo brevissimo, podospermis vix semine longioribus.

Hab. Southern coast of New Holland. *R. Brown, Esq.* Swan River settlement. *James Drummond,* (*Crucif. n.* 1.)

I have reason to believe that this is the original *Stenopetalum lineare* of Mr. Brown, the species on which the genus was founded; but the fruit is certainly more elongated and more cylindrical than in those species of *Stenopetalum* already figured in this work, and somewhat at variance with the generic character as given by De Candolle; "*silicula ellipsoidea, compressa.* Yet, in other respects, in the erect fruit, in the size of the plant, and in the leaves, it tallies with the description; only it is said of the stem "*seta porcina vix crassior.*" Our fruit can scarcely be compared with that of *Draba,* to which De Candolle has likewise referred it.

1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4, 5. Siliculæ. *f.* 6. Transverse section of the same. *f.* 7. Silicula with the valve removed. *f.* 8. Seed and seed-stalk:—*magnified.*



TAB. DCXX.

STENOPETALUM ROBUSTUM. *Endl.*

Erectum virgatum superne ramosum parce foliosum, foliis inferioribus interrupte lyrato-pinnatifidis laciniis linearibus subobtusis, superioribus elongatis linearibus integerrimis v. remote inæqualiter dentatis, petalis unguiculatis e lata basi longissime subulatis flexuosis acuminatis, siliculis obovatis nutantibus pedicello longioribus.

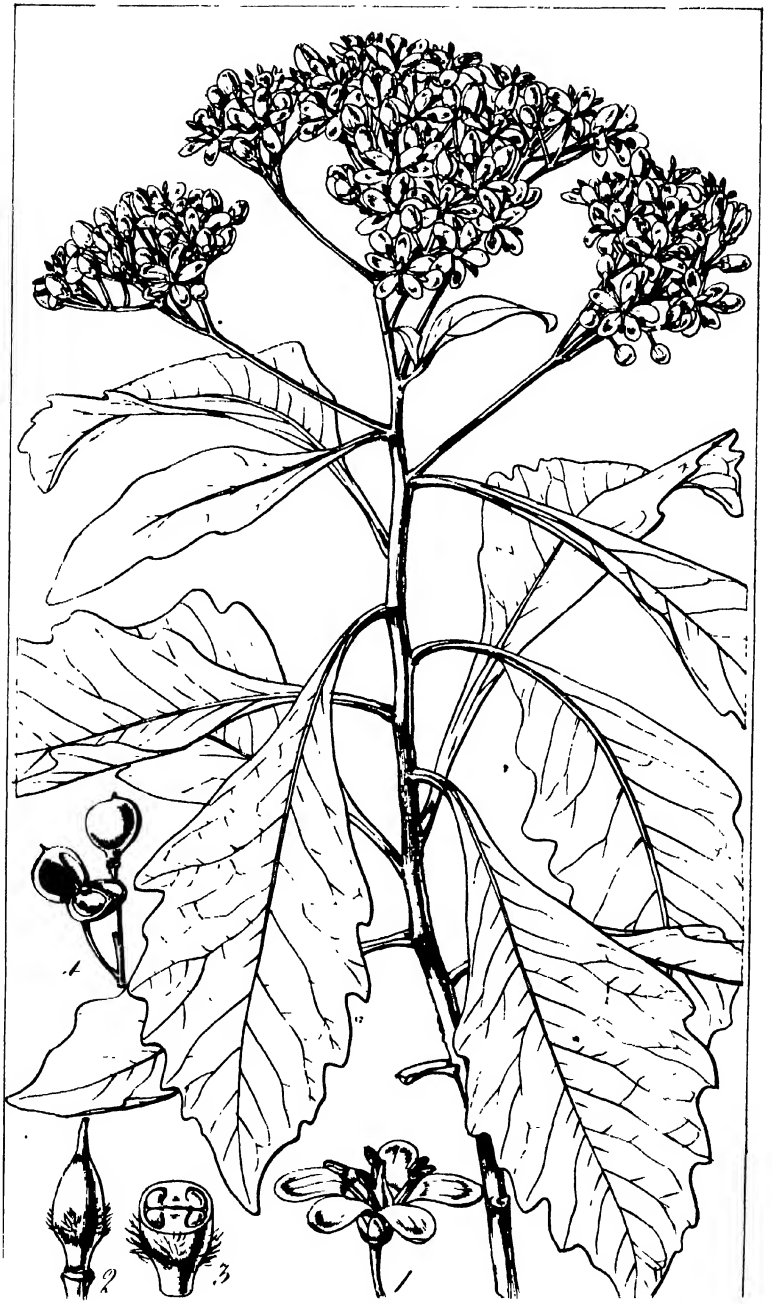
S. robustum. *Endlicher in Hügel pl. Nov. Holl. p.* 4.

HAB. S. W. Australia, Freemantle (*Hügel*). *Drummond,* (*n.* 5 and 7.) King George's Sound, (*Mus. Paris.*)

A slender, twiggy, annual plant, 1-2 feet high. Stems terete, naked or sparingly leafy below, branching upwards, the branches erect. Leaves generally withering before the seeds ripen, rather fleshy, 1-1½ inch long, the lower ones more or less divided, bright green and shining, the upper more or less toothed or quite entire. Flowers at first erect, then drooping, on pedicels which are shorter than the calyx. Sepals linear-elliptical, rounded at the apex, pale coloured and tipped with green. Petals orange yellow, their apices paler, or sometimes quite white, the claw very narrow at the base, expanding, and then produced into a slender lamina 4-5 lines long. Shorter stamens seated on 2 broad glands, having 2 other erect glands pressed close to the germen, one on each side of them. Germen elongated, elliptical, with a broad, sessile stigma. Siliculæ obovate, nearly as broad as they are long, 3-5 lines long; stigma very short, valves plano-convex, seeds about 4, with short funiculi.

We have the advantage of figuring this from living specimens which flowered at the Royal Botanical Gardens of Kew, in June 1843, and were raised from seeds sent by Mr. Drummond.

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. Pistil. *f.* 5. Silicula: *natural size.* *f.* 6. Silicula. *f.* 7. The same, the valves separating. *f.* 8. The same, the valves removed. *f.* 9. Seed:—*magnified.*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TAB. DCXXI.

Pittosporum rhombifolium. *A. Cunn.*

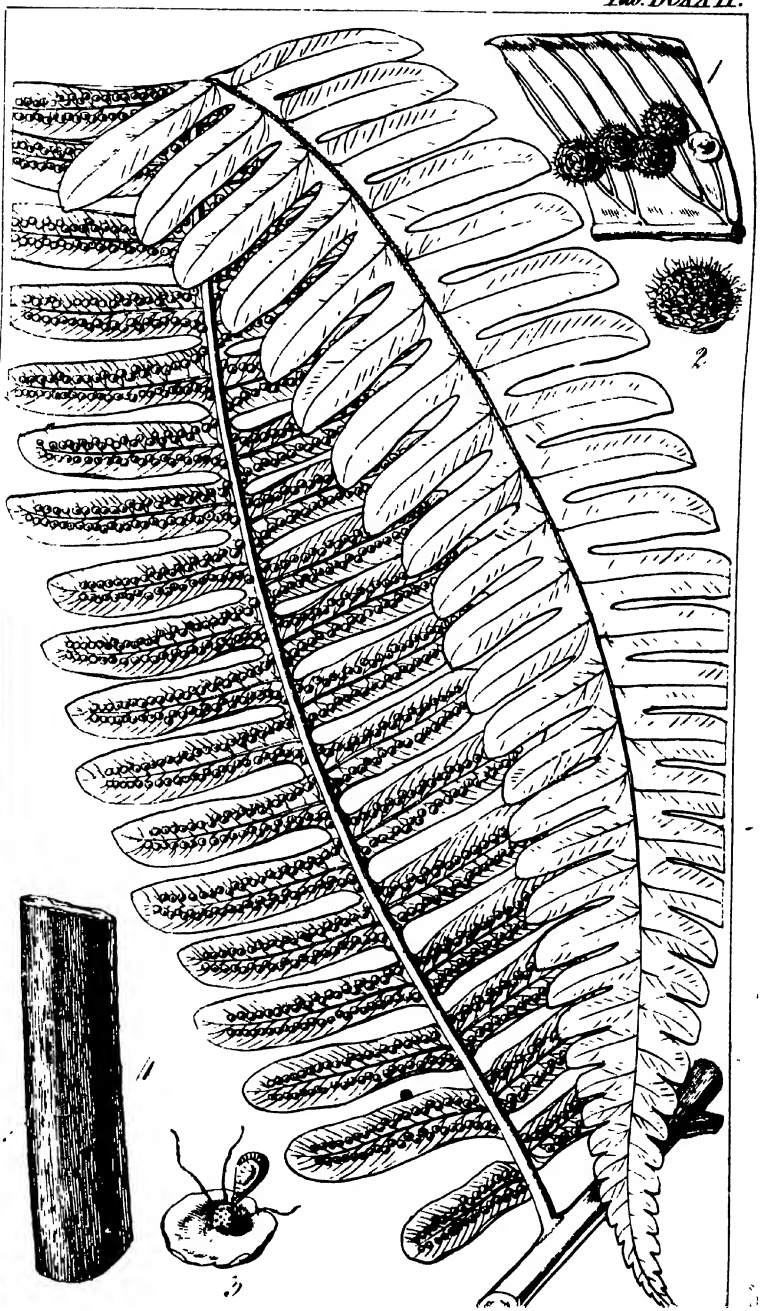
Arbor, foliis coriaceis rhombeo-ovatis basi cuneatis in petiolum attenuatis grosse sinuato-serratis, floribus corymbosis, petalis ellipticis patentibus, ovario basi piloso in stipitem attenuato.

Pittosporum rhombifolium. *A. Cunn. MSS. in Herb. nostr.*

Hab. Forests of the Brisbane River, *Allan Cunningham.*

This, according to Mr. Cunningham, to whom we are indebted for a knowledge of the plant, as well as the possession of it in the Royal Botanical Gardens of Kew, attains a height of 60-80 feet. In our greenhouse, cramped in a garden pot, it becomes a flowery shrub, in the course of many years only reaching a height of 4 or 5 feet. The flowers are white, arranged in corymbs, axillary and terminal, at first sight not much unlike those of a *Cornus*. The germen, or ovary, has tufts of hairs in the broadest part; below that, it gradually tapers into a short stipes, apparent also in the fruit, which is globoso-compressed, 2-celled and bursting open into 2 valves. The species is remarkable for the coarse toothing of its leaves, and the small and densely corymbose flowers.

Fig. 1. Flower. *f.* 2. Pistil. *f.* 3. Section of the ovary:—*magnified.* *f.* 4. Fruits:—*natural size.*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TAB. DCXXII.

HEMITELIA? ALTERNANS. *Hook.*

Inermis, frondibus pinnatis v. bipinnatis, pinnis remotis petiolatis alternis oblongo-lanceolatis coriaceo-membranaceis acuminatis profunde pinnatifidis segmentis oblongis subacutis vix serrulatis, venis liberis basi furcatis, soris in venulas supra furcaturas (rarius axillaribus) seriatim dispositis inter marginem et costam, involucro peltato tenui-membranaceo subintegro.

Hemitelia? alternans. *Hook. Sp. Fil. p.* 29.

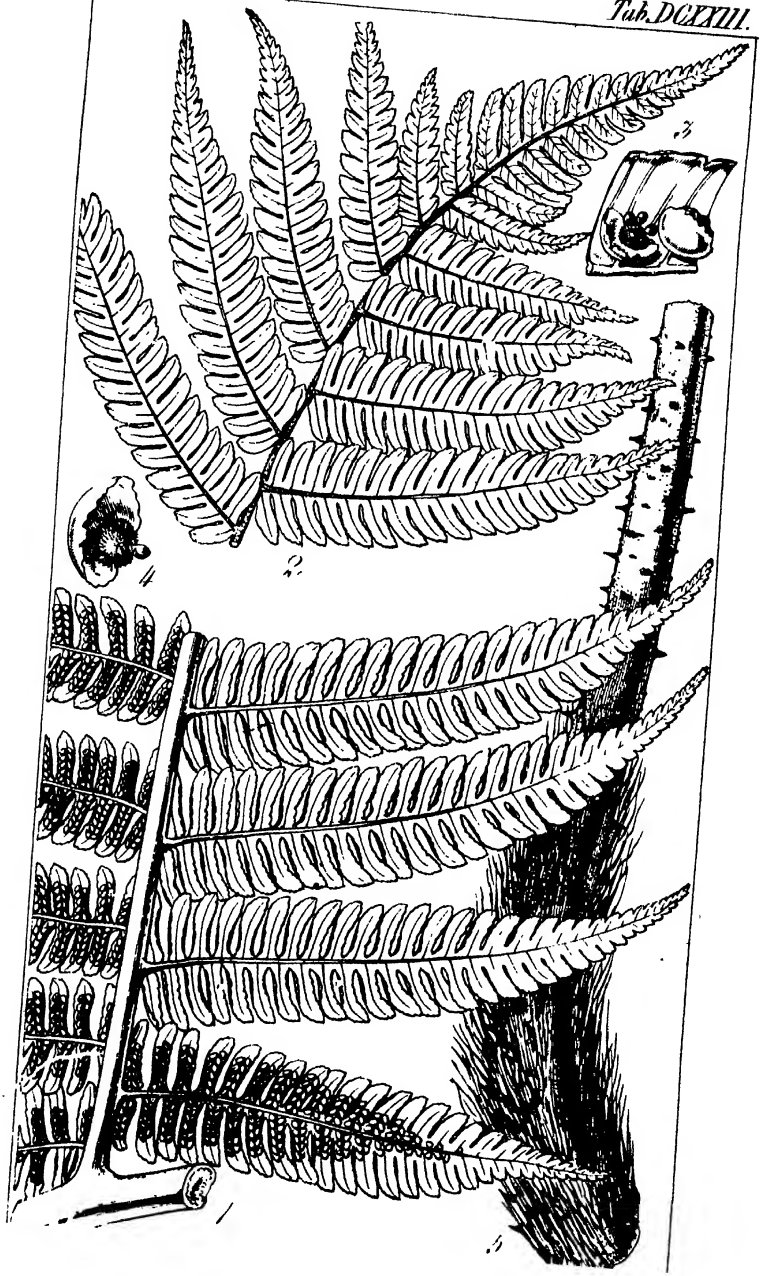
Polypodium alternans. *Wall. Cat. n.* 329.

HAB. Penang. *Dr. Wallich. Lady Dalhousie.*

The Ferns, composing the family or group of *Cyatheaceæ*, present so many forms of fructification, as regards the involucre, that it seems hardly possible to limit the generic distinctions. The present does not possess the deep cup of *Cyathea*, nor the lateral and dimidiate one of *Hemitelia*. As a species, it is a very fine and distinct one, discovered by Dr. Wallich in Penang, and subsequently by Lady Dalhousie in the same island. The pinnæ are very large, deeply pinnatifid, and exhibiting fructifications in a line or series between the margin and costa of the segments. The receptacles produce copious hairs among the capsules.

Fig. 1. Portion of a segment of the pinna with sori, showing the veining. *f.* 2. Sorus, covering the involucre. *f.* 3. Involucre, most of the capsules and hairs being removed from the sorus: *magnified.*—*f.* 4. Portion of the stipes: *natural size.*

del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TAB. DCXXIII.

Cyathea Beyrichiana. *Presl.*

Stipite aculeato, fronde bipinnata, rachide et costa subpubescentibus, pinnulis lanceolatis acuminatis ad rachin pinnatifidis, segmentis lineari-oblongis acutis obscure serratis subfalcatis, soris copiosis, involucro demum hemisphærico amplo.

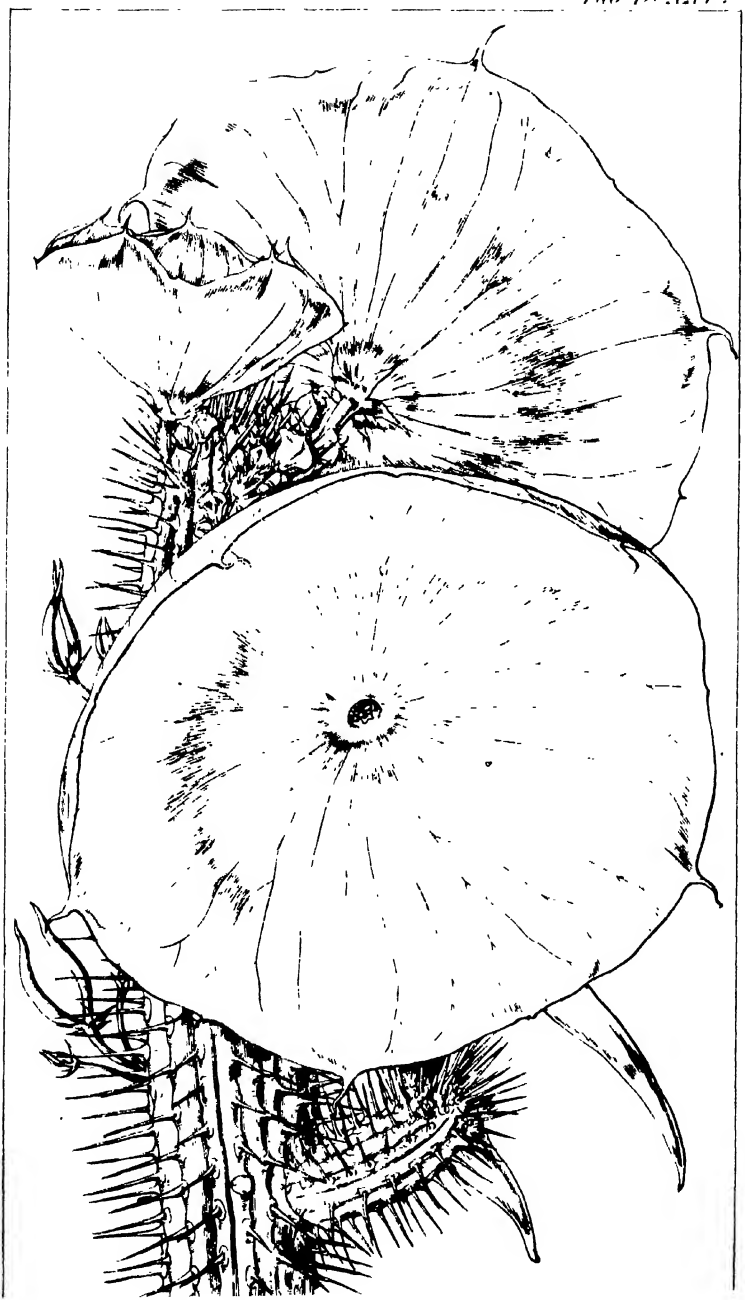
Cyathea Beyrichiana. *Presl, Tent. Pterid. p.* 55 (*name only*). *Hook. Sp. Fil. p.* 21.

Alsophila stipulacea. *Beyrich, Herb.*

Hab. Brazil; *Sellow, Beyrich.* Rio Janeiro, *Gardner*, (*n.* 135).

This again is a Fern, with as much claim to be placed in *Hemitelia* as in *Cyathea.* Could we see the involucre in its young state, we should probably find it covering the whole sorus with a globose membrane: but, in a more advanced stage, it is quite open on the outer or upper side, towards the margin of the segment; but still covering the sorus like a hood. We shall have occasion to observe a similar structure in the Ceylon *Cyathea Walkeræ.*—(See our Tab. dcxlvii.)

Fig. 1. Lower portion of a primary pinna. *f.* 2. Upper portion of ditto: *nat. size.*—*f.* 3. Portion of a segment, with sori. *f.* 4. Sorus: *magnified.*—*f.* 5. Base of a stipes: *nat. size.*



TAB. DCXXV.

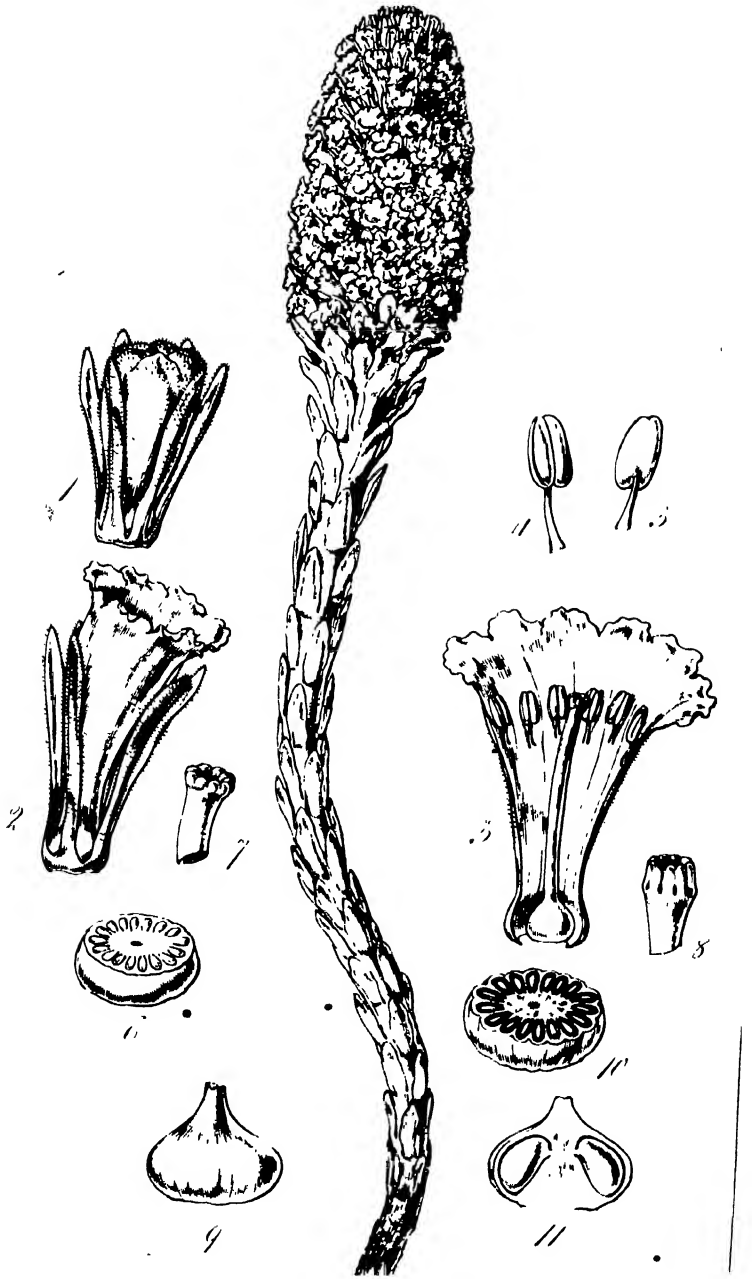
Scytanthus Gordoni. *Hook.*

Corolla margine intusque glaberrima.

Stapelia Gordoni. *Mass. Stap. t.* 40.

Hab. South Africa. Great Namaqua, near the Orange River. *Colonel Gordon, Burke.*

The generic character, and some remarks relating to another species of this genus, will be found at our Tabs. dcv, dcvi. The present is the original species, first detected by Colonel Gordon, and only known to the public through the figure given of it in Masson's "*Stapeliæ,*" in 1796, from a drawing made by its discoverer. So strange a form of *Stapelia* did not receive the credit it deserved from the cultivators of this singular group of plants; and by many it was considered an exaggerated, if not a fictitious representation. Mr. Burke's recent discovery of it again, has only proved the correctness of Colonel Gordon's representation; and living plants are now in the possession of the Right Hon. the Earl of Derby, at his seat of Knowsley, Lancashire. The present is much smaller in every part than the *Scytanthus Burkei,* and has the corolla quite glabrous.



TAB. DCXXVI.

Pholisma arenarium. *Nutt.*

Gen. Char. Pholisma *Nutt.*—*Calyx* profunde 6-partitus, laciniis lineari-subspathulatis. *Corolla* monopetala infundibuliformis, limbo subregulari 6-lobo, lobis rotundatis plicatis æstivatione imbricatis. *Stamina* 6, supra medium tubi inserta, inclusa, uniserialia, æqualia, lobis corollæ alternantia. *Filamenta* brevia. *Antheræ* oblongo-ovatæ obtusæ, biloculares, loculis longitudinaliter prope marginem dehiscentibus. *Ovarium* superum subglobosum ad circumferentiam multiloculare, loculis uniovulatis; ovulis ad angulum internum circa axin crassissimum affixis. *Stylus* elongatus crassiusculus inclusus. *Stigma* dilatatum, centro depresso, margine lobato-dentato. *Fructus* (immaturus) baccatus? loculis et seminibus ut in ovario. *Semina* ex angulum interiorem pendentia.—Herba *succulenta colorata in arenosis* Californiæ *proveniens, facie* Orobanchis, *aphylla.* Caulis *simplex squamosus.* Flores *parvi densissime spicati, ut videtur ebracteati.*

Pholisma *arenarium. Nutt. mst.*

Hab. Monterey and St. Diego, California. *Mr. Nuttall.*

A very remarkable new genus, discovered by Mr. Nuttall, evidently nearly allied to the equally little known *Corallophyllum* of Humboldt and Kunth,* and which will probably with it form a distinct natural order near *Orobancheæ*, but with a widely different fruit. The two genera precisely accord in their succulent texture and in the absence of verdure, in the general structure of their calyx, corolla, pistil and ovary, or young fruit: but *Corallophyllum* has a coralloid or fungoid substance, instead of leaves or scales, an 8-lobed corolla, with 8 stamens, arranged in two series, and it is an inhabitant of Mexico.

Fig. 1. Flower, before expansion. *f.* 2. Perfect flower. *f.* 3. The corolla laid open, and pistil. *f.* 4, 5. Stamens. *f.* 6. Section of ovary. *f.* 7, 8. Stigmas in different states. *f.* 9. Immature fruit. *f.* 10. Transverse, and *f.* 11, vertical section of the same:—*magnified.*

TABS. DCXXVII, DCXXVIII.

Lomaria Colensoi. *Hook. fil.*

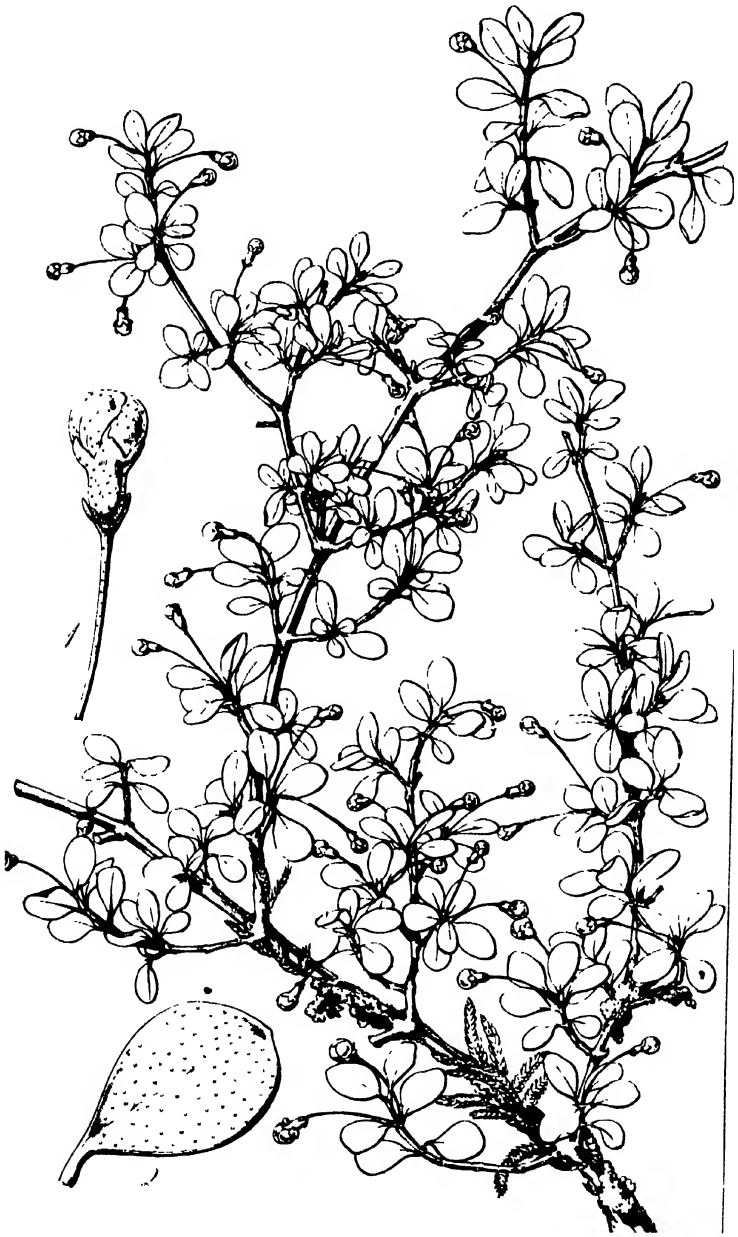
Caudice repente squamoso, frondibus longe stipitatis, sterilibus lato-lanceolatis integris v. ovato-lanceolatis profunde pinnatifidis, laciniis utrinque 2-3 late ovato-lanceolatis terminali longiore omnibus acuminatis marginatis integerrimis, venis approximatis fere horizontalibus bi-trifurcatis parallelis apicibus liberis clavatis, fertilibus pinnatifidis laciniis linearibus acuminatis.

Lomaria heterophylla. *Colenso in Tasm. Journ. of Nat. Hist. ined.* (*not Desvaux*).

Hab. N. Zealand, Port Nicholson; *J. T. Bidwill, Esq.* In deep woods, near the Lake Waikaré; *W. Colenso, Esq.*

Allied to the Brazilian *Acrostichum heterophyllum*, Raddi, so far as the barren fronds are concerned, which are the only ones figured by that author; yet very distinct in the much longer stipes, more coriaceous frond, closer and less distinct veins, and broader and fewer segments. The sterile and fertile fronds, as will be seen by our figure, are extremely different. They have been detected by Mr. Colenso as much as 3 feet long. *J. D. H.*

Fig. 1. Sterile undivided frond. *f.* 2. Sterile pinnatifid one. *f.* 3. Fertile frond; *nat. size* (but small specimens). *f.* 4. Portion of the sterile frond:—*magnified.*



TAB. DCXXIX.

Myrtus pedunculata. *Hook. fil.*

Frutex, ramis divaricatis rigidis, ramulis copiosis brevibus, foliis (parvis) obovatis obtusis brevi-petiolatis punctulatis integerrimis coriaceis glabris, pedunculis axillaribus unifloris folio duplo longioribus, apice bibracteatis, petalis 5.

Hab. New Zealand. Northern Island, near the village of Ruatahuna, and also near the Lake Waikaré. *W. Colenso, Esq.*

Frutex 10-12-pedalis, ramis divaricatis, cortice cinereo tecta. *Ramuli* copiosi, breves, foliosi. *Folia* opposita vix semiunciam longa, coriacea, obovata, obtusa, brevissime petiolata, punctulata, obscure venosa, utrinque glaberrima, subtus pallidiora. *Pedunculi* axillares, solitarii, graciles, uniflori, folio duplo longiores, sub florem bibracteati; bracteis oppositis, tubo calycis 3-plo brevioribus, oblongis, appressis. *Calyx* 5-lobus, lobis latis. *Petala* 5, punctata. *Bacca* parva, aurantiaca, 2-locularis, 4-5-sperma.

The flowers of the plant figured, were not fully expanded. The berries on a separate specimen are small, orange-coloured, containing 4-5 seeds. *J. D. H.*

Fig. 1. Flower-bud. *f.* 2. leaf:— *magnified.*

TAB. DCXXXII.

Callixene parviflora. *Hook. fil.*

Caule filiformi ramoso basi repente, foliis remotis distichis patentibus lineari-ellipticis nervosis acutis subcoriaceis, floribus terminalibus solitariis brevissime pedunculatis bracteatis, perianthii laciniis ellipticis concavis 3 interioribus paululum minoribus.

Hab. New Zealand, Northern Island. At the foot of large trees in the Beech forest, on the ascent of the mountains from Lake Waikaré. *W. Colenso, Esq.*

The genus *Callixene*, and but one species, has hitherto been supposed to exist only in the Falkland Islands and in Antarctic South America; and the discovery of the present in New Zealand by Mr. Colenso, is another proof of the singular botanical analogies that exist between those two very remote countries. It is even difficult to assign specific differences between the two, except they are to be found in the much smaller flowers of the present one, with the unequal sepals, and the larger and more remote foliage, and the greater stature of the entire plant; peculiarities which may, however, be due to the better soil and climate. *J. D. H.*

Fig. 1. Flower. *f.* 2. Stamens and pistil. *f.* 3, 4. Sepals. *f.* 5. Pistil. *f.* 6. Section of the ovary. *f.* 7. Fruit. *f.* 8. Section of ditto. *f.* 9. Seed:—*magnified.*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TAB. DCXXXIII.

Loranthus (Dendrophthoe) Colensoi. *Hook. fil.*

Ramis teretibus, foliis obovato-rhombeis coriaceis obtusis petiolatis subaveniis, pedunculis axillaribus subquinquefloris, floribus longitudine fere foliorum, petalis 4, ungue basi dilatato lamina angusto-ovata 4-plo longiore.

Hab. New Zealand, Northern Island. Abundant, growing parasitically on branches of *Metrosideros tomentosa,* near Lake Waikaré. *W. Colenso, Esq.*

For the knowledge of this fine *Loranthus,* which displays a profusion of scarlet blossoms, we are indebted to Mr. Colenso. It is allied to *L. tetrasepalus,* (Linn. fil.) of the same country, and it belongs also to the same section; but may be easily recognised by the much larger size of all its parts, by the greater number of flowers on the peduncle, and the decidedly petiolated leaves. We possess another (a third) very distinct species, native of New Zealand. *J. D. H.*

Fig. 1. Flower. *f.* 2. Petal and stamen. *f.* 3. Pistil.— *magnified.*

TAB. DCXXXIV.

Ranunculus macropus. *Hook. fil.*

Caule elongato erecto gracili glaberrimo parce ramoso, foliis longissime petiolatis flabelliformibus ternatis, foliolis cuneatis profunde 2-3 partitis, segmentis apice crenato-dentatis, pedunculis oppositifoliis elongatis erectis 1-floris, sepalis 5 obovatis petala conformia suberecta duplo superantibus, staminibus paucis, acheniis glaberrimis ovatis in stylo elongato subrecurvo sensim attenuatis.

Hab. Near the Mission Station of Kaupapa, Poverty Bay, Northern Island, New Zealand; found growing almost entirely submersed in marshy pools. *W. Colenso, Esq.*

Whole plant about 1 foot long, and but little branched. The radical petioles are rather thick, succulent, 8-10 inches long, dilated at the very base. Leaves $\frac{3}{4}$ inch long by $2\frac{1}{2}$-3 broad, between flabellate and reniform in their circumscription. Stem about as long as the root-leaves, with 3 or 4 remote, solitary peduncles, each opposite to a cauline leaf, and longer than its petiole. Flowers small, the sepals spreading, slightly concave, 3-nerved. Petals much smaller than the sepals, suberect. Achenia smooth and glabrous, with rather a long, slightly-curved style. A very remarkable plant, from the great length of its petioles, (especially those from the root) and peduncles, and the smallness of its petals as compared with the sepals. *J. D. H.*

Fig. 1. Flower. *f.* 2. Underside of ditto. *f.* 3. Head of carpels. *f.* 4. Single carpel:—*magnified.*

TAB. DCXXXV.

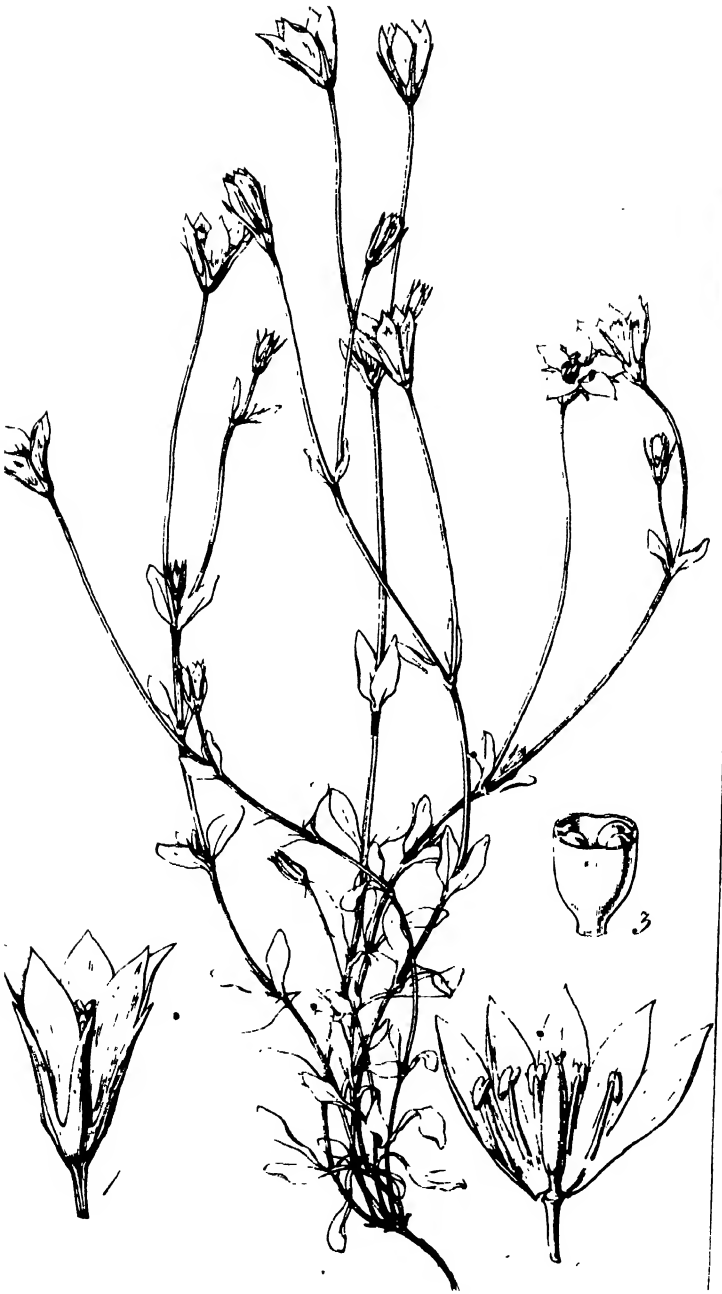
Gentiana bellidifolia. *Hook. fil.*

Radice valida fusiformi, caulibus brevibus adscendentibus unifloris, foliis spathulatis inferioribus confertis recurvis petiolatis subenervibus, superioribus brevioribus obovatis obtusis remotis sessilibus, segmentis calycinis ovato-ellipticis acutis, corolla late campanulata v. subrotata profunde 5-fida segmentis ovatis obtusis, ovario brevi-stipitato.

Hab. New Zealand, Northern Island. On Tongariro. *J. T. Bidwill, Esq.*

Stems and branches short, and ascending; the flowering ones only elongated, 4-5 inches in length. Leaves about an inch long, apparently rather thick, their apices rounded. Flowers terminal, solitary; the calyx is 4 lines long. Corolla 7-8 lines long, between campanulate and rotate, yellow, and streaked when dry with darker lines. Anthers from the curving of the apex of the filament, extrorse after the pollen is emitted. Ovarium elongated, stipitate; the stigma bilabiate. Allied to the *G. saxosa*, Forst. from which, according to the drawing in the British Museum, it differs in the much smaller size, shorter leaves, which are broader in proportion, and especially in the shorter and broader corolla. *J. D. H.*

Fig. 1. Corolla laid open:—*magnified.*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TAB. DCXXXVI.

Gentiana Grisebachii. *Hook. fil.*

Annua? caule erecto gracili e basi ramoso, ramis superioribus furcatis elongatis ad apices 1-floris, foliis inferioribus petiolatis spathulatis flaccidis apicibus rotundatis, superioribus sessilibus ovatis subacutis, floribus erectis, segmentis calycinis linearibus acuminatis dorso nervosis, corolla rotato-campanulata segmentis elongato-ovatis acuminatis, ovario stipitato.

Hab. New Zealand, Northern Island. On downs between Rotuari and the base of Tongariro. *J. T. Bidwill, Esq.*

A very elegant and distinct species, belonging to Dr. Grisebach's section *Antarctophila,* to which also Forster's *G. montana* is referrible, as well as the Magellanic species, with which the present resembles in habit of growth. Stems, cylindrical, slender below, increasing a little in diameter upwards, a span long. Radical leaves none, or perhaps withering as the stems elongate; cauline ones apparently flaccid, ¾ inch long, 2½ lines broad, the upper ⅓ inch long. Flowers rather small, terminal at the apices of the branches, solitary. Calyx narrow at the base, 5-angled, deeply divided into 5 linear segments, each with a stout, prominent nerve on the back, ¼ shorter than the corolla. Corolla ½ inch long, yellow when dry, subrotate. Anthers as in the *G. bellidifolia. J. D. H.*

Fig. 1. Flower. *f.* 2. Corolla laid open. *f.* 3. Section of the ovary:—*magnified.*

TAB. DCXXXVI.

Gentiana Grisebachii. *Hook. fil.*

Annua? caule erecto gracili e basi ramoso, ramis superioribus furcatis elongatis ad apices 1-floris, foliis inferioribus petiolatis spathulatis flaccidis apicibus rotundatis, superioribus sessilibus ovatis subacutis, floribus erectis, segmentis calycinis linearibus acuminatis dorso nervosis, corolla rotato-campanulata segmentis elongato-ovatis acuminatis, ovario stipitato.

Hab. New Zealand, Northern Island. On downs between Rotuari and the base of Tongariro. *J. T. Bidwill, Esq.*

A very elegant and distinct species, belonging to Dr. Grisebach's section *Antarctophila*, to which also Forster's *G. montana* is referrible, as well as the Magellanic species, with which the present resembles in habit of growth. Stems cylindrical, slender below, increasing a little in diameter upwards, a span long. Radical leaves none, or perhaps withering as the stems elongate; cauline ones apparently flaccid, ¾ inch long, 2½ lines broad, the upper ⅓ inch long. Flowers rather small, terminal at the apices of the branches, solitary. Calyx narrow at the base, 5-angled, deeply divided into 5 linear segments, each with a stout, prominent nerve on the back, ¼ shorter than the corolla. Corolla ⅓ inch long, yellow when dry, subrotate. Anthers as in the *G. bellidifolia*. *J. D. H.*

Fig. 1. Flower. *f.* 2. Corolla laid open. *f.* 3. Section of the ovary:—*magnified.*

TAB. DCXXXVII.

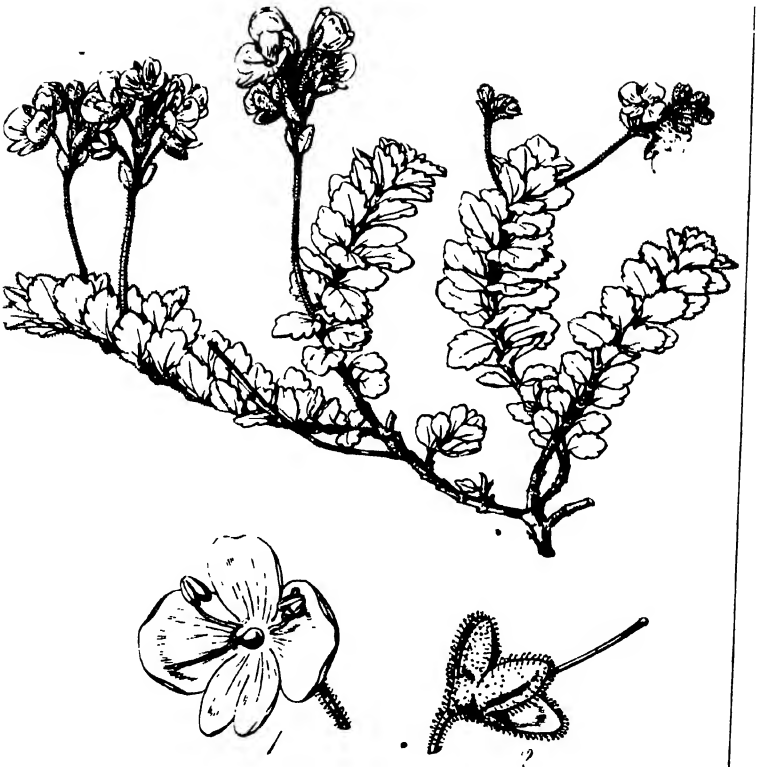
VIGNA HIRTA. *Hook.*

Caule volubili retrorsum hirsuto, foliolis oblongo-acuminatis hirsutis intermedio petiolulato, pedunculo longissimo 2-floro glaberrimo, calyce leguminibusque rufo-villosis.

HAB. Interior of South Africa. *Burke.*

This species blossomed in the stove of the Right Hon. the Earl of Derby, and was raised from seeds sent from the interior of South Africa by Mr. Burke. The leaves are of a peculiarly thin and membranaceous texture, many of the leaflets are 5-6 inches long; the stipules are small, ovato-sagittate; the flowers moderately large, pale yellowish-green; the style is densely ciliated on the underside beneath the stigma; the pods 4-5 inches long, and, equally with the calyx and young stems, clothed with ferruginous hairs.

Fig. 1. Vexillum. *f.* 2. Ala. *f.* 3. Carina. *f.* 4. Flower, from which the petals are removed. *f.* 5. Pistil. *f.* 6. A fruit:—*magnified.*



TAB. DCXL.

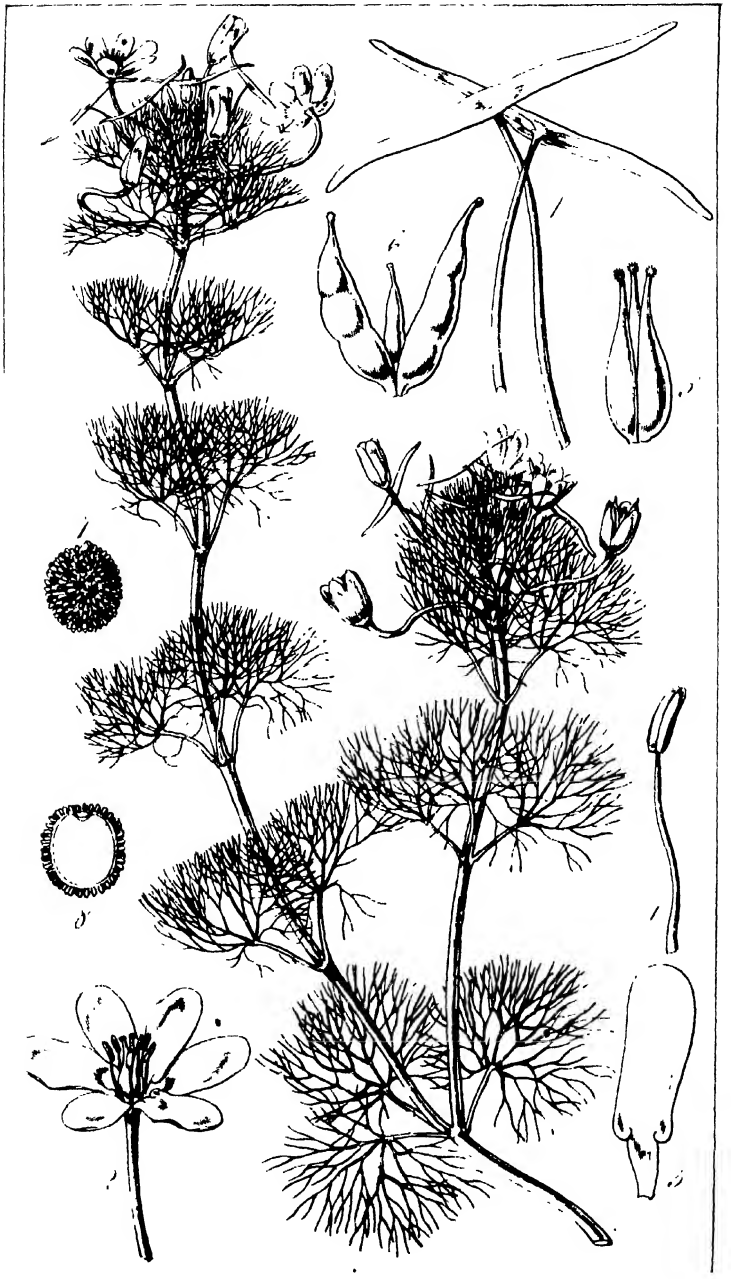
Veronica nivea. *Hook. fil.*

Fruticosa procumbens, ramis brevibus, foliis confertis decussatis patentibus nunc subsecundis ovatis rigidis brevissime petiolatis inciso-crenatis glabris, pedunculis lateralibus ramos superantibus, bracteis ovatis calycibusque glanduloso-hirsutis, racemis corymbosis 4-6 floris segmentis calycinis ovatis, corollæ lobo inferiore bifido.

Hab. New Zealand. On Tongariro, a mountain, whose altitude is estimated at 6,200 feet above the level of the sea. *J. T. Bidwill, Esq.*

A most distinct and well-marked fruticose species of *Veronica*, and very alpine in its locality. The stems are, for the size of the plant, stout, procumbent, 4-6 inches long; the branches short, ascending, leafy. Leaves closely placed, spreading on four sides, except when the branch happens to be procumbent, and then they point upwards, subsecund. Peduncles erect, and, as well as the bracteas, pedicels and calyces, densely clothed with glandular hairs. Pedicels 2-4 lines long, the upper ones gradually shorter. Corolla pure white, with the lower lobe bifid in the flower examined, (possibly by accident). It is of this *Veronica* Mr. Bidwill speaks, when describing his ascent of Tongariro, in his Rambles in New Zealand: "A few patches of a most beautiful snow-white *Veronica*, which I at first took for snow, were growing among the stones, but they ceased before I had ascended a third part of the way."

Fig. 1. Flower. *f.* 2. Calyx and pistil:—*magnified.*



TAB. DCXLI.

Cabomba Piauhyensis. *Gardn.*

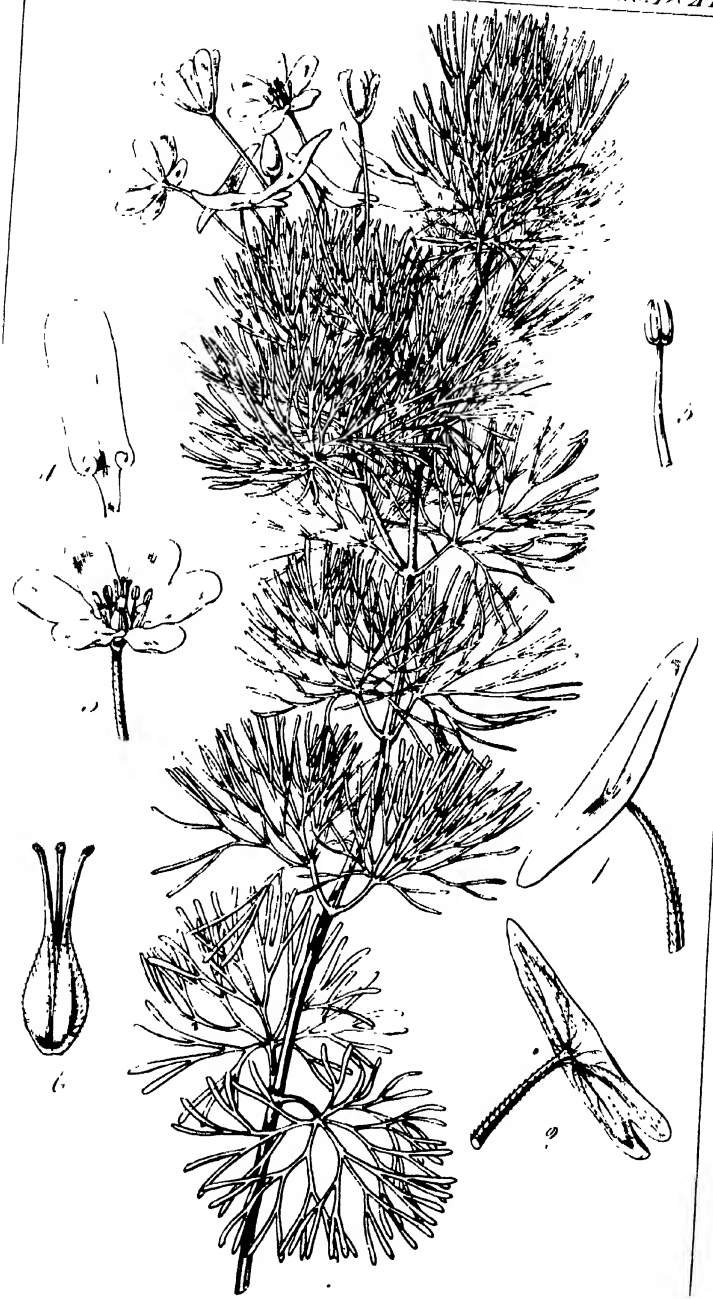
Glaberrima, foliis natantibus peltatis linearibus, floribus roseis, antheris extrorsis lineari-oblongis, carpellis 2-3, seminibus echinatis.

Cabomba Piauhyensis. *Gardn. Herb. Fl. Bras. n.* 2478.

Hab. In the stagnant waters of a large lake at Algadoēs, in the south-west of the province of Piauhy, Brazil. July, 1839.

Much diversity of opinion has existed among Botanists as to the place which *Cabomba*, and its ally *Brasenia*, ought to hold in the natural series. Jussieu put *Cabomba* among his *Junci*, by the side of *Scheuchzeria*, with the remark, "An Ranunculis affinior?" Richard, who first established a distinct order of the two genera, considered them monocotyledonous. De Candolle, in his "Prodromus," regards them as a section of *Podophylleæ*, doubting if they may not be a tribe of *Nymphæaceæ*, while Lindley, in his Natural System of Botany, makes them form a subroder of *Nymphæaceæ*, remarking that they only differ from that order in having definite seeds and distinct carpels, while *Brasenia* is closely related to *Caltha*. In his Elements of Botany he elevates them into a distinct order between *Podophylleæ* and *Cephalotaceæ*, in the Albuminous section of dissolved Exogens. Torrey and Gray do the same, placing it between *Berberidaceæ* and *Ceratophyllaceæ*. Endlicher, in his Genera Plantarum, also forms a distinct order of them, and gives it an intermediate station between *Nymphæaceæ* and *Nelumboneæ*. A careful examination and consideration of the flowers of the four species of which the genus *Cabomba* now consists, have led me to an opinion somewhat at variance from all those which we have been considering regarding their affinities. To me they appear true Ranunculaceous plants, which ought to constitute a distinct tribe between *Ranunculeæ*, DC., and *Helleboreæ*, DC., for the following reasons.—In the first place, the habit of *Cabomba* is quite that of the *Batrachium* section of *Ranunculus*, while *Brasenia* has that of *Caltha*: secondly, they exhibit the *extrorse* anthers of the greater part of the *Ranunculaceæ*, not *introrse*, as stated by all authors: and thirdly, they present the distinct carpels, the pendulous ovules, and albuminous seeds of *Ranunculaceæ*. It is true that the structure of the ovule in *Cabomba* rather resembles *Nymphæaceæ* than *Ranunculaceæ*, but the difference is not greater than is observable between that of *Nymphæaceæ* and *Nelumboneæ*, which scarcely can be considered as more than tribes of one group. *G. Gardner.*

Fig. 1. Floating leaves. *f.* 2. Flower. *f.* 3. Petal. *f.* 4 Stamen. *f.* 5. Pistil. *f.* 6. Carpels. *f.* 7. Seed. *f.* 8. Seed laid open:—*magnified.*



TAB. DCXLII.

Cabomba Caroliniana. *A. Gray.*

Foliis natantibus peltatis ellipticis vel lineari-oblongis, petiolis pedunculisque subpubescentibus, floribus albidis, antheris extrorsis rotundato-ellipticis, carpellis 3-4 puberulis, seminibus glaberrimis.

Cabomba Caroliniana. *Gray, in Torr. et Gray, Fl. N. Am.* 1, *p.* 55. *Walpers's Repert.* 1, *p.* 105.

Cabomba Aubletii. *Mich. Fl.* 1, *p.* 206.

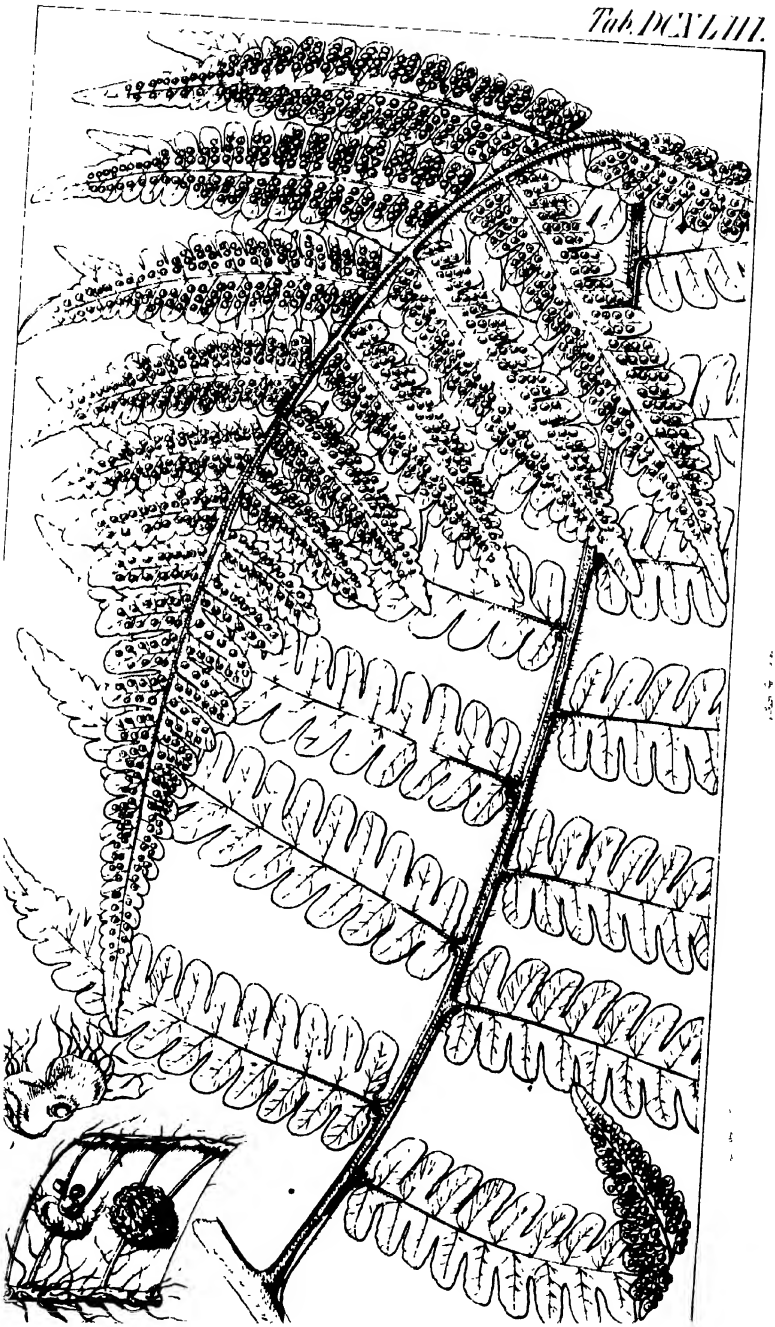
Nectris peltata. *Pursh, Fl.* 1, *p.* 239 (*excl. syn.*)

Nectris aquatica. *Nutt. Gen.* 1, *p.* 230. *Ell. Sketch,* 1, *p.* 416. (*non Willd. ex Torr. et Gray*).

Hab. In stagnant waters, from Newburn, North Carolina, to Georgia and Louisiana; *Torr. and Gray.* New Orleans; *Thos. Drummond, n.* 47.

As regards its floating foliage, this species is intermediate between *C. aquatica*, Aubl., and *C. Piauhyensis*, Gardn. From the former it is distinguished by these leaves being far narrower, and not unfrequently emarginate at one end; by its much shorter anthers, and less pubescent carpels and pedicels. From the latter, by its much narrower leaves; by its nearly round, not oblong, anthers; by its thicker and shorter carpels; the glabrous, not echinate, seeds; and the pubescent, not glabrous, petioles and peduncles. *G. Gardner.*

Fig. 1, 2. Upper and underside of differently formed floating leaves. *f.* 3. Flower. *f.* 4. Petal. *f.* 5. Stamen. *f.* 6. Pistils:—*magnified.*



TAB. DCXLIII.

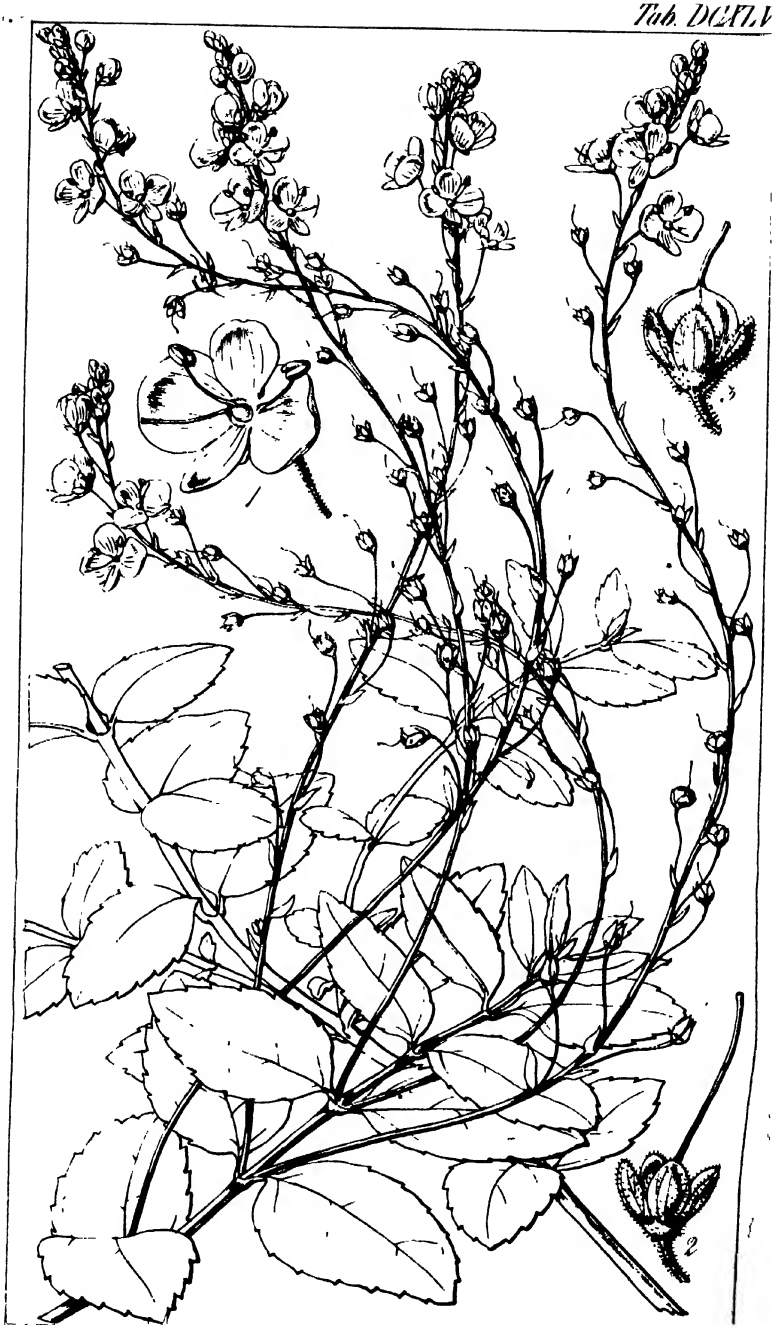
Hemitelia? Parkeri. *Hook.*

Inermis? frondibus 2-3-pinnatis, rachi costa venulisque pilis divergentibus obsitis, rachi inter pinnulas alata, pinnulis sessilibus oblongo-lanceolatis obtuse acuminatis ad medium pinnatifidis subcoriaceo-membranaceis, segmentis ovatis obtusis integris, venulis liberis supra medium furcatis, soris axillaribus marginem versus, involucro parvo ciliato dimidiato sæpius ætate bifido. *Hook. Sp. Fil. v.* 1, *p.* 32.

Hab. British Guiana. *C. S. Parker, Esq.*

The winged rachis, very distinct in the upper part between the pinnules, affords a striking character to this species and the *H.? Guianensis;* but the present is easily recognised by its copious hairs, more abundant sori, and very different involucre, which I think may be considered entirely that of a *Hemitelia*, though in general habit it approaches nearer a true *Cyathea* or *Alsophila.*

Fig. 1. Portion of a segment, with fruit. *f.* 2. Involucre:—*magnified.*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TAB. DCXLV.

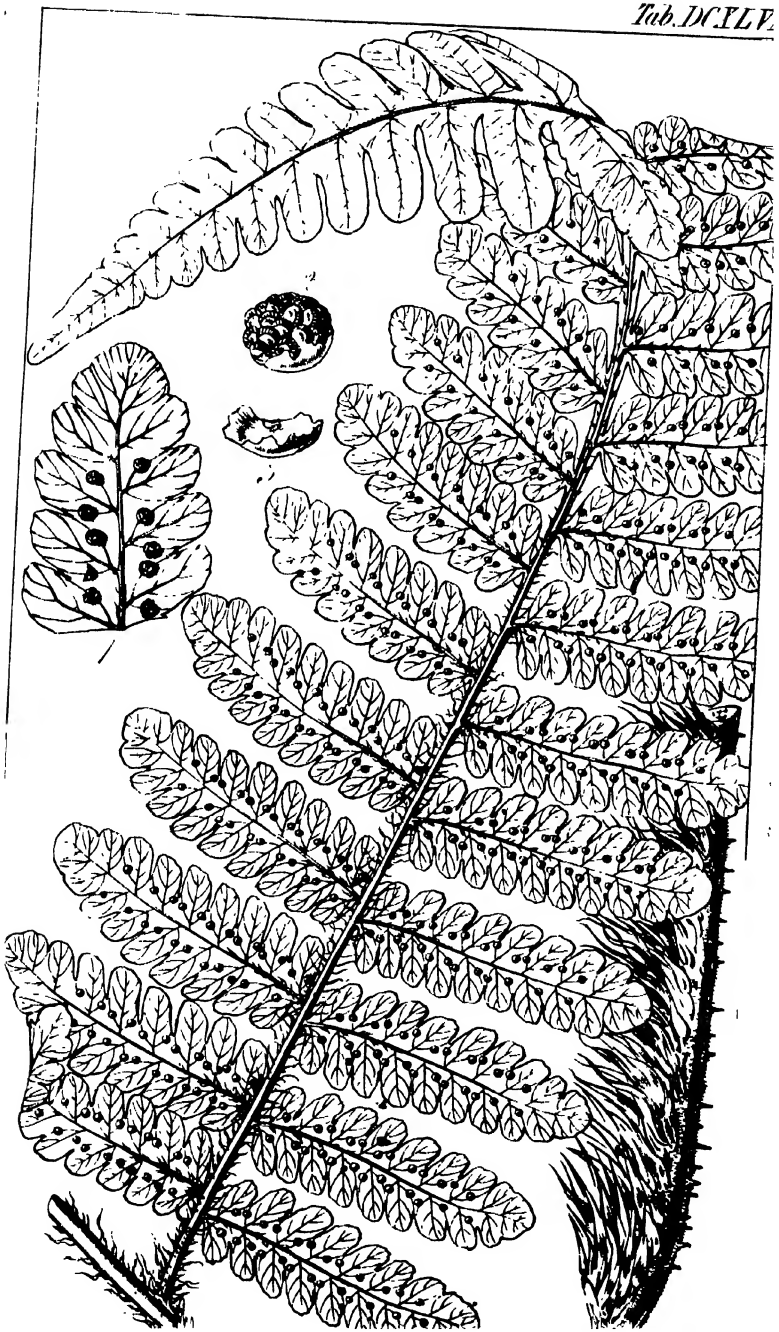
Veronica diffusa. *Hook. fil.*

ruticosa, caulibus procumbentibus diffusis, ramis elongatis, liis per paria remotis patentibus elliptico-ovatis acutis rratis subsessilibus glabris carnoso-coriaceis, racemis axil-ribus oppositis longissimis flexuosis, bracteis parvis lineari-ıbulatis, pedicellis elongatis calycibusque glanduloso-pubes-entibus, capsulis orbiculatis segmenta calycina lato-elliptica aululum excedentibus.

B. New Zealand. On Tongariro. *J. T. Bidwill, Esq.*

s spreading, straggling species, with procumbent stems, its y long and opposite lateral racemes rising upwards. These er are 6-8 inches long, with slender pedicels an inch in length. wers, according to Mr. Bidwill's notes, blue and white. The it is that of our European *V. prostrata.*

Fig. 1. Flower. *f.* 2. Calyx and pistil. *f.* 3. Fruit:—*mag-ed.*



TAB. DCXLVI.

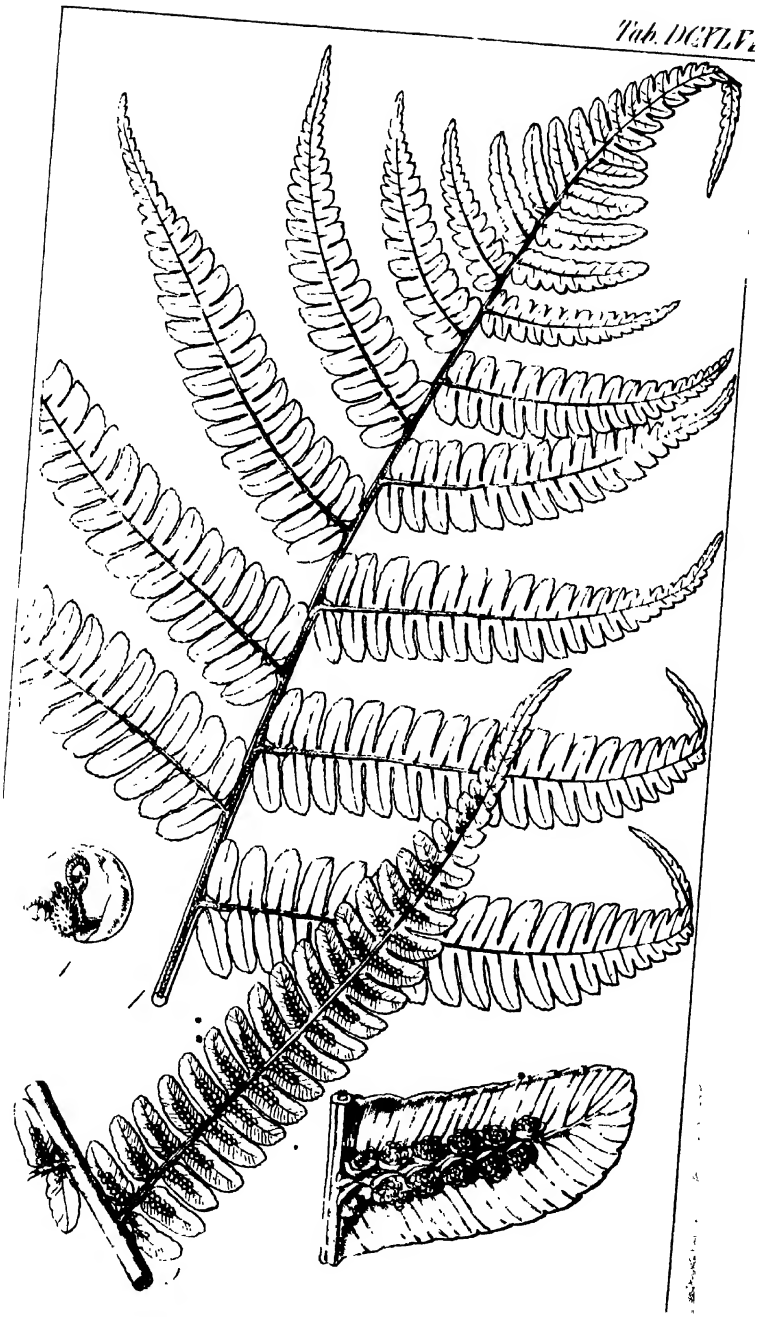
Hemitelia Hostmanni. *Hook.*

Stipite ad basin aculeato rachique squamosis, frondibus bipinnatis, pinnulis oblongis valde obtusis sessilibus ad basin cuneatis membranaceis pinnatifidis v. ad medium lobatis superioribus coadunatis decurrentibus, venulis simplicibus liberis, soris remotis, ad medium venulæ inferioris inter sinum v. rachin. *Hook. Sp. Fil. v.* 1, *p.* 31.

Hab. Dutch Guiana. *Hostmann, n.* 64.

A very distinct and well-marked species, of which I possess a frond about 4 feet long, including the stipes, which measures a foot and a half, rich mahogany brown, on one side densely clothed with long, dark brown, glossy scales, on the other muricated with short aculei. Pinnæ remote, the largest a foot long, sessile. Pinnules pinnatifido-lobate, of a thin and flaccid texture, veins of each lobe pinnated, only the lowest pair of veinlets bearing each near the middle a solitary sorus ; so that on the pinnules the sori are distant, and form a line remote from the margin, half-way between the sinus and rachis. The upper pinnules are confluent, at first simply combined by a decurrent wing, then united into a lobed margin, and terminating in a blunt, entire acumen. The rachis of the pinnæ is rough and somewhat scaly, that of the pinnules slightly strigoso-hispid.

Fig. 1. Fertile portion of pinnule. *f.* 2. Sorus. *f.* 3. Involucre :—*magnified.*



TAB. DCXLVII.

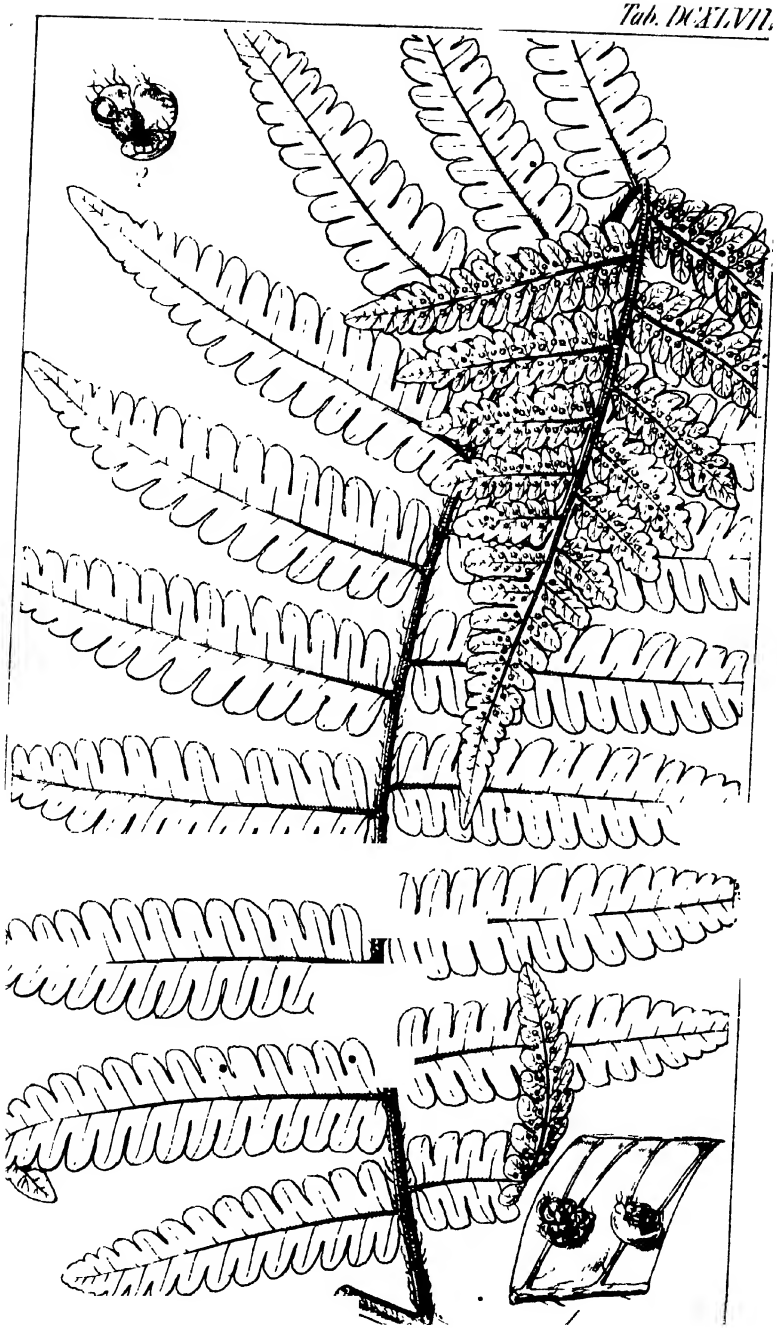
Cyathea Walkeræ. *Hook.*

Inermis, frondibus bipinnatis, pinnulis crassis coriaceis profunde pinnatifidis inferne pinnatis, pinnulis superioribus ad basin contractis segmentisque oblongis valde obtusis integris v. parum crenatis, costa inferiore plerumque squamosa, squamis deciduis, venis copiosis depressis basin et sæpe ad medium furcatis, soris ad furcaturas infimas costæ proximis, involucris magnis opacis ad latus superius solummodo quasi dehiscentibus in costam reflexis cuculliformibus. *Hook. Sp. Fil. v.* 1, *p.* 24.

Hab. Adam's Peak, Ceylon. *Mrs. Col. Walker.*

A very well marked species, which we have received from Mrs. Walker alone. Stipes and main rachis of a mahogany colour, flattened and grooved above when dry, naked, or with small deciduous scales below. Pinnules, as it were, jointed on the rachis, at the base pinnated, the pinnules being distinct, contracted at the base, hence elliptical. Texture firm, rigid, coriaceous, rich brown when dry, paler beneath. Involucres membranous, but firm, apparently bursting rather unequally, on the superior half vertically, and thus irregularly 2-lobed; this large, broad involucre, is reflected on the costa, and still covers in a measure the sorus, on the lower side, as with a hood. My specimens being advanced in fruit, I cannot certainly say that the involucre wholly surrounds the sorus when young: it is probable it does, and that the structure is analogous to that of *C. Beyrichiana*, Presl.—I do not look upon it as a dimidiate involucre, or I should place it in *Hemitelia*.

Fig. 1. Portion of a pinna, upper side. *f.* 2. Pinnule, with fructification, seen from beneath: *nat. size.* *f.* 3. Segment of pinnule, with sori. *f.* 4. Involucre and receptacle :—*magnified.*



TAB. DCXLVIII.

Hemitelia? Guianensis. *Hook.*

nermis? rachi costaque inferne subsquamosa strigoso-hispidis, frondibus 2-3-pinnatis, rachi secundaria conspicue alata precipue inter pinnulas, pinnulis sessilibus oblongo-lanceolatis apicibus productis obtusis membranaceis infra medium pinnatifidis, segmentis ovatis obtusis integris, venis liberis ad medium furcatis, soris 2-3 quoque segmento axillaribus versus marginem sitis, involucro ciliato plerumque ad latus inferum sori 2-3 lobato. *Hook. Sp. Fil. v.* 1, *p.* 31.

Hab. British Guiana. *C. S. Parker, Esq.*

I do not find this anywhere described, nor am I clear that it hould not be placed in *Cyathea.* In habit and form of the innules, it exhibits the closest affinity with *H. Parkeri*, Hook., ut the involucre is dissimilar.

Fig. 1. Portion of a segment with sori. *f.* 2. Involucre and orus :—*magnified.*

Tab. DXIIII. DC.

TAB. DCXLVIII.

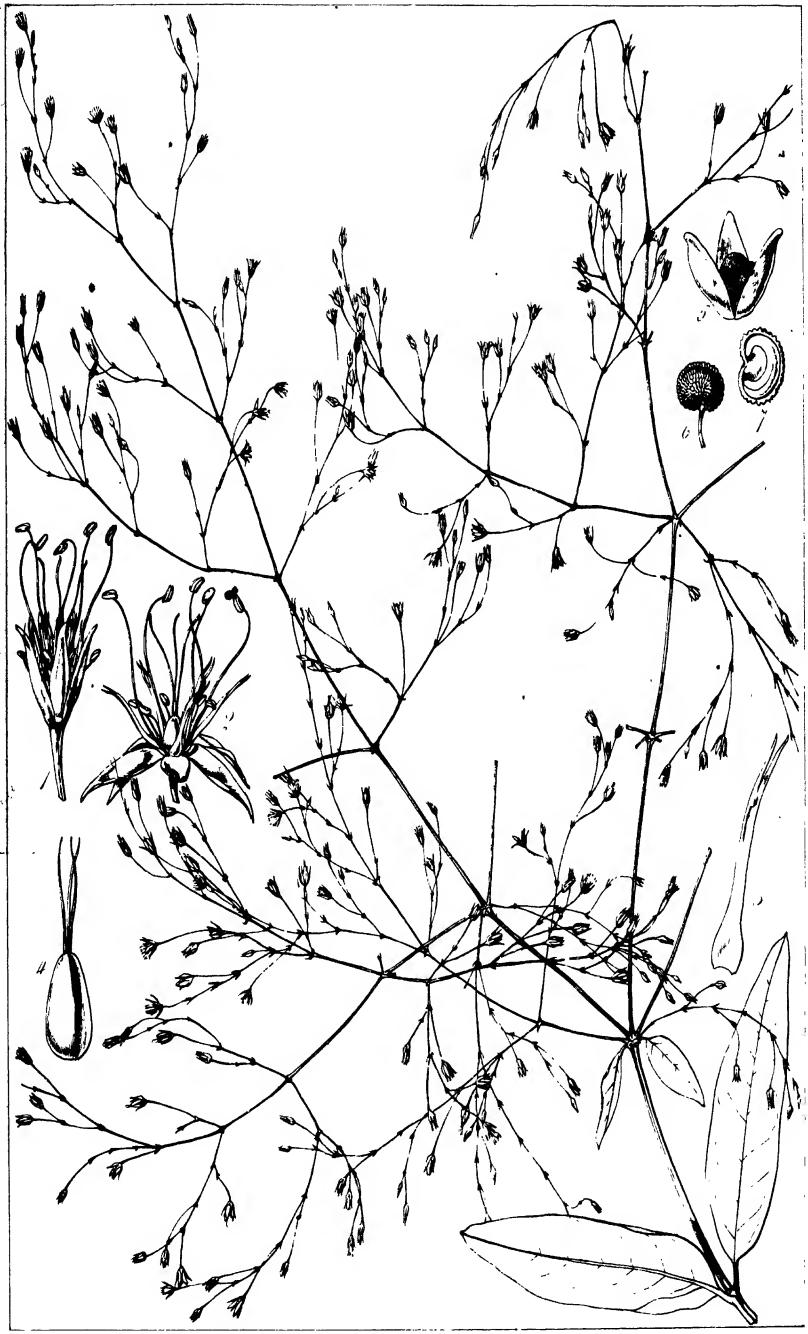
Hemitelia? Guianensis. *Hook.*

Inermis? rachi costaque inferne subsquamosa strigoso-hispidis, frondibus 2-3-pinnatis, rachi secundaria conspicue alata precipue inter pinnulas, pinnulis sessilibus oblongo-lanceolatis apicibus productis obtusis membranaceis infra medium pinnatifidis, segmentis ovatis obtusis integris, venis liberis ad medium furcatis, soris 2-3 quoque segmento axillaribus versus marginem sitis, involucro ciliato plerumque ad latus inferum sori 2-3 lobato. *Hook. Sp. Fil. v.* 1, *p.* 31.

Hab. British Guiana. *C. S. Parker, Esq.*

I do not find this anywhere described, nor am I clear that it should not be placed in *Cyathea*. In habit and form of the pinnules, it exhibits the closest affinity with *H. Parkeri*, Hook., but the involucre is dissimilar.

Fig. 1. Portion of a segment with sori. *f.* 2. Involucre and sorus :—*magnified.*



TAB. DCXLIX, DCL.

Schiedea Nuttallii. *Hook.*

Paniculis amplis ramosissimis, ramis capillaribus elongatis patentissimis, foliis brevi-petiolatis ovato-lanceolatis obscure penninerviis, sepalis pedicellisque glabris.

Eucladus suffruticosus. *Nutt. Mst.*

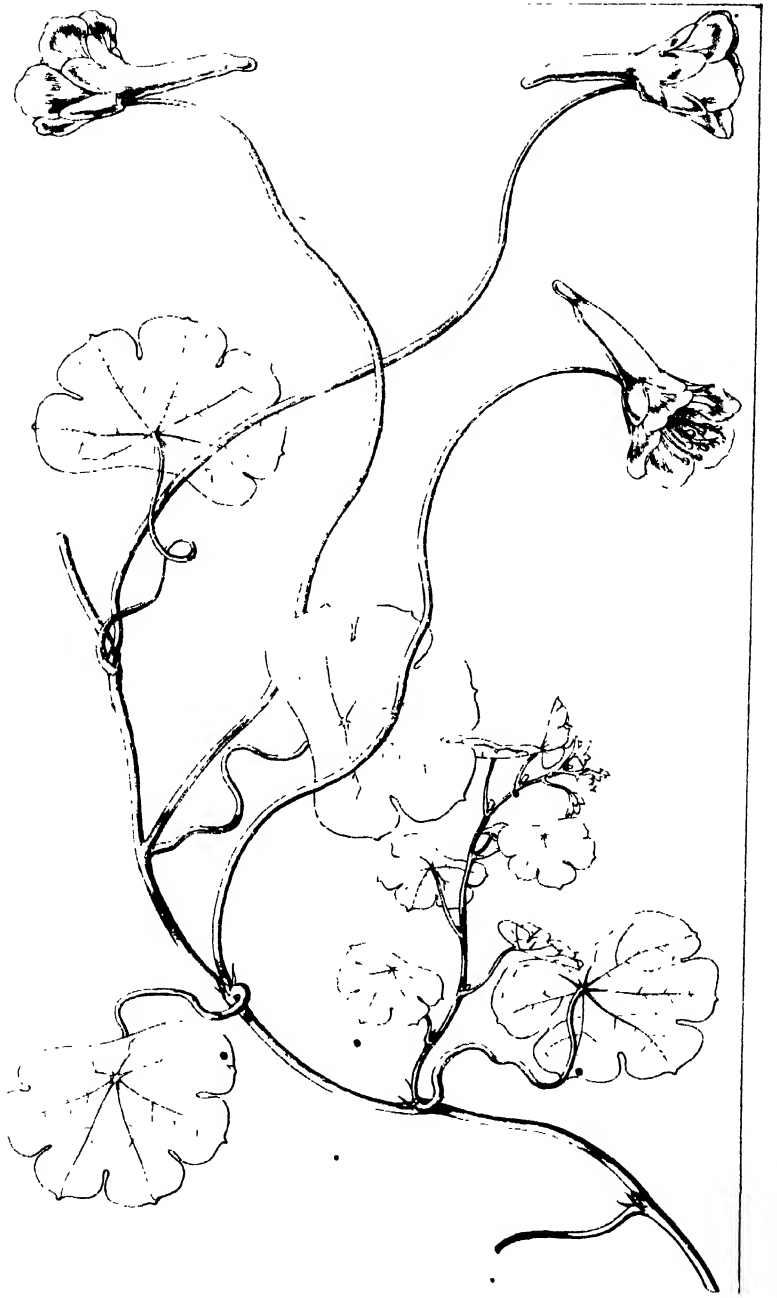
Hab. On the rocks of the Parri, Oahu, Sandwich Islands. *T. Nuttall, Esq.*, 1834.

This plant possesses the true character of *Schiedea*, (Chamisso and Schlechtendahl) a shrubby genus of Caryophylleous (or some have it Portulaceous) plants, as far as we can at present know, peculiar to the Sandwich Islands. It is extremely different from the only described species, *S. ligustrina*, Cham. and Schlecht. in its very ample panicle, smaller flowers, petioled and penninerved (not strongly 3-nerved) leaves. A third species exists in my Herbarium, which may be called *S. Menziesii.**

Fig. 1. Flower. *f.* 2. The same, fully expanded. *f.* 3. Petal. *f.* 4. Pistil. *f.* 5. Capsule, burst open. *f.* 6. Seed and seed-stalk. *f.* 7. Seed laid open:—*magnified.*

* Schiedea *Menziesii*; panicula erecta coarctata, foliis sessilibus anguste lanceolatis longe acuminatis trinerviis, calycibus pedicelusque pubescenti-tomentosis.

Hab. Sandwich Islands; *Menzies.*



TAB. DCLIII.

Tropæolum tuberosum. R. & P.

Glaberrimum scandens, petiolis cirrhiformibus, foliis reniformibus 5-7-lobatis subtus glaucis, lobis latis retuso-truncatis glandula triangulari apiculatis, pedunculis longissimis (subspithamæis), calycis limbo erecto-patente in calcar longum subulato-cylindraceum obtusum apice constictum attenuato, petalis obovato-rotundatis breviter unguiculatis subæqualibus calycem paulo superantibus.

Tropæolum tuberosum. *Ruiz. et Pav. Fl. Per.* 3, *p.* 77, *t.* 314, *f.* 6. *Hook. Bot. Mag. t.* 3714.

Hab. Peru & Columbia, *Ruiz & Pavon, Hartweg, Lobb.* Ravine near *Quito, Dr. W. Jameson.*

When the plate of this was prepared I had supposed it to be a new species; so little has it of the luxuriance of the cultivated plant. I suffer it to pass, however, as being drawn from a native specimen, from Quito, and from a locality where it had not been before known to be indigenous.

Fig. 1. Flower:—*magnified.*

TAB. DCLIV.

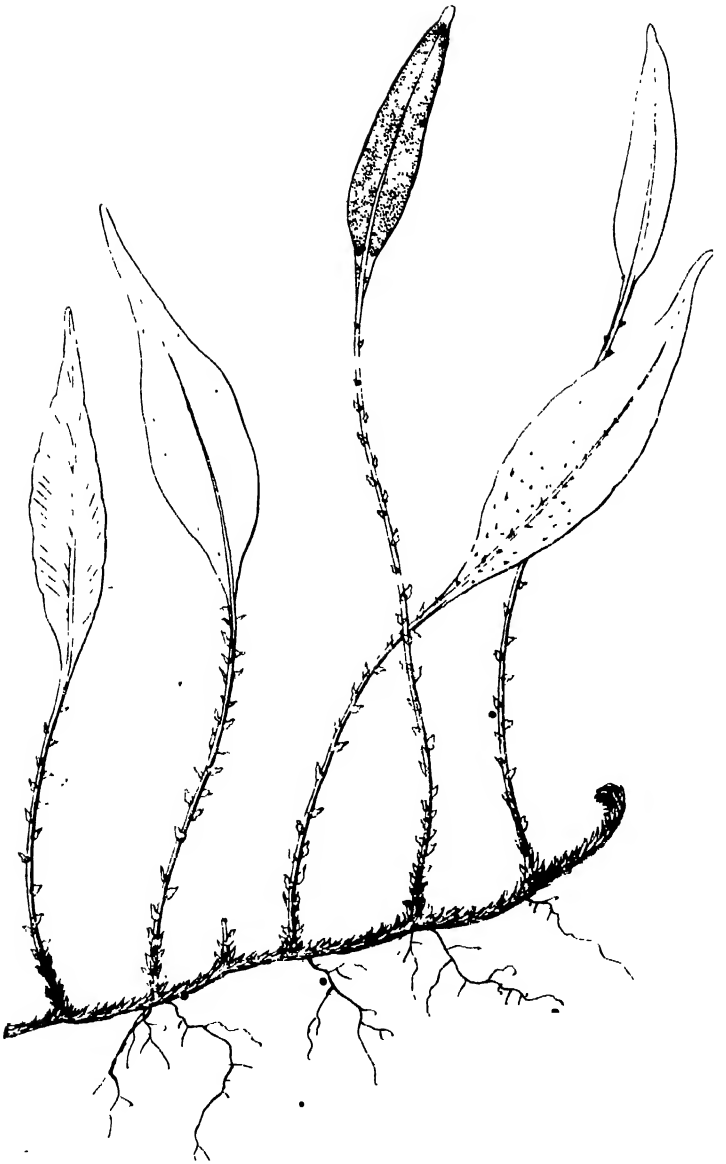
Tradescantia gracilis. *H. B. K.*

Caule adscendente simplici vel ramoso, foliis remotiusculis brevi-vaginatis cordatis acutis vaginisque ciliatis, pedunculis solitariis v. ternis ad unum latus pubescentibus, capitulis (vix umbellis) paucifloris bracteatis, bracteis ovatis peltatis ciliatis, calycis sepalis apice barbatis, antheræ loculis remotis.

Tradescantia gracilis. *H. B. K. Nov. Gen. Am. v.* 1. *p.* 261.

Hab. Tarqui et Chillo, Quitinian Andes: elev. 8000 feet above the level of the sea, *Humboldt.* Morro of Quito, *Dr. W. Jameson.*

This has delicate white flowers, with deep purple calyx and bracteas, and anthers, of which the cells are set very wide apart by a transverse connectivum like the top of the letter T.



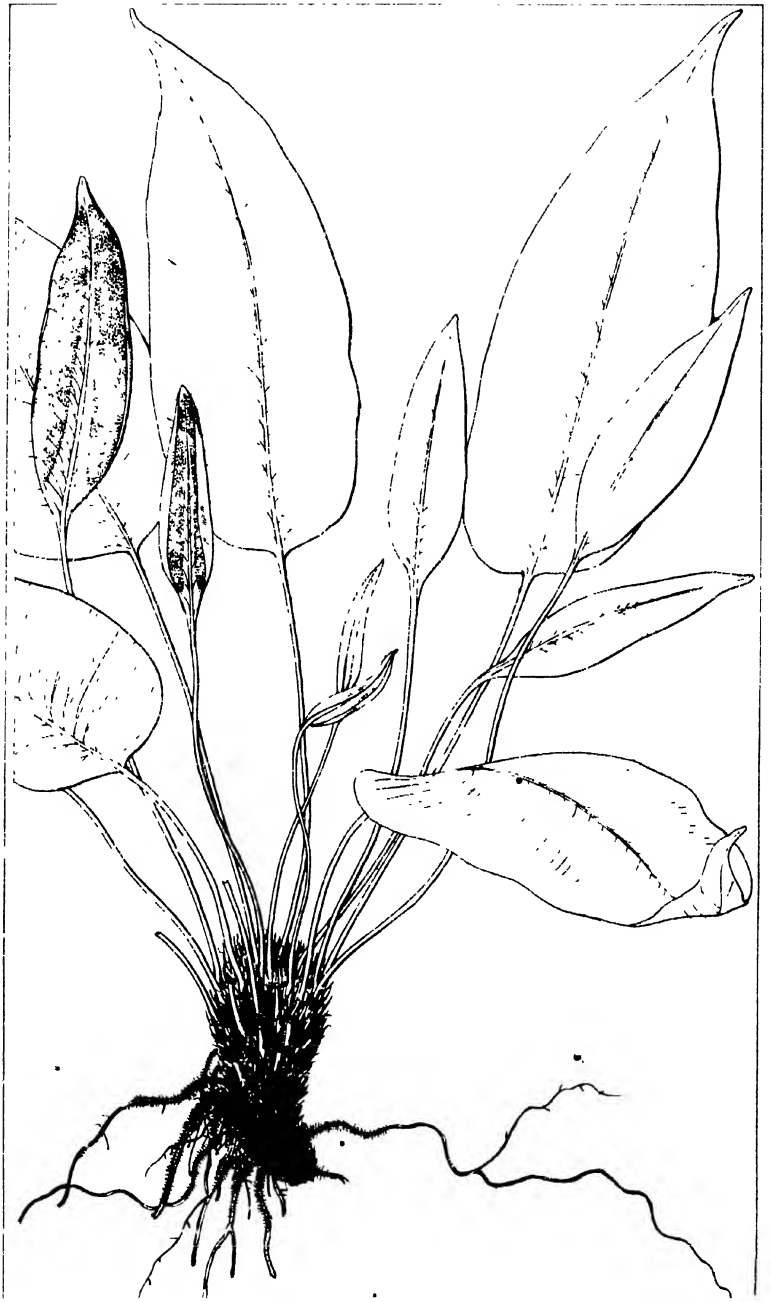
TAB. DCLVII.

Acrostichum (Elaphoglossum) Lloense. *Hook.*

Caudice repente squamoso, frondibus remotis, sterilibus lanceolatis submembranaceis glabris nudisculis basi in stipitem longiorem parce squamosum decurrentibus apice longe attenuatis margine integris vel obscure crenatis, fertilibus multo minoribus lato-lanceolatis obtusiusculis, venis obliquis parallelis internis obscuris.

Hab. On trunks of trees, Valley of Lloa, El Equador. *Dr. W. Jameson.*

An elegant, but small species, remarkable for its long creeping stipes, and the peculiar shape of the fronds. The veins are more oblique than is usual in *Elaphoglossum*, and the margin is often obscurely lobed, or coarsely crenate. The scales are large, for the size of the plant; on the stipes, and on the frond are a few smaller appressed ones.



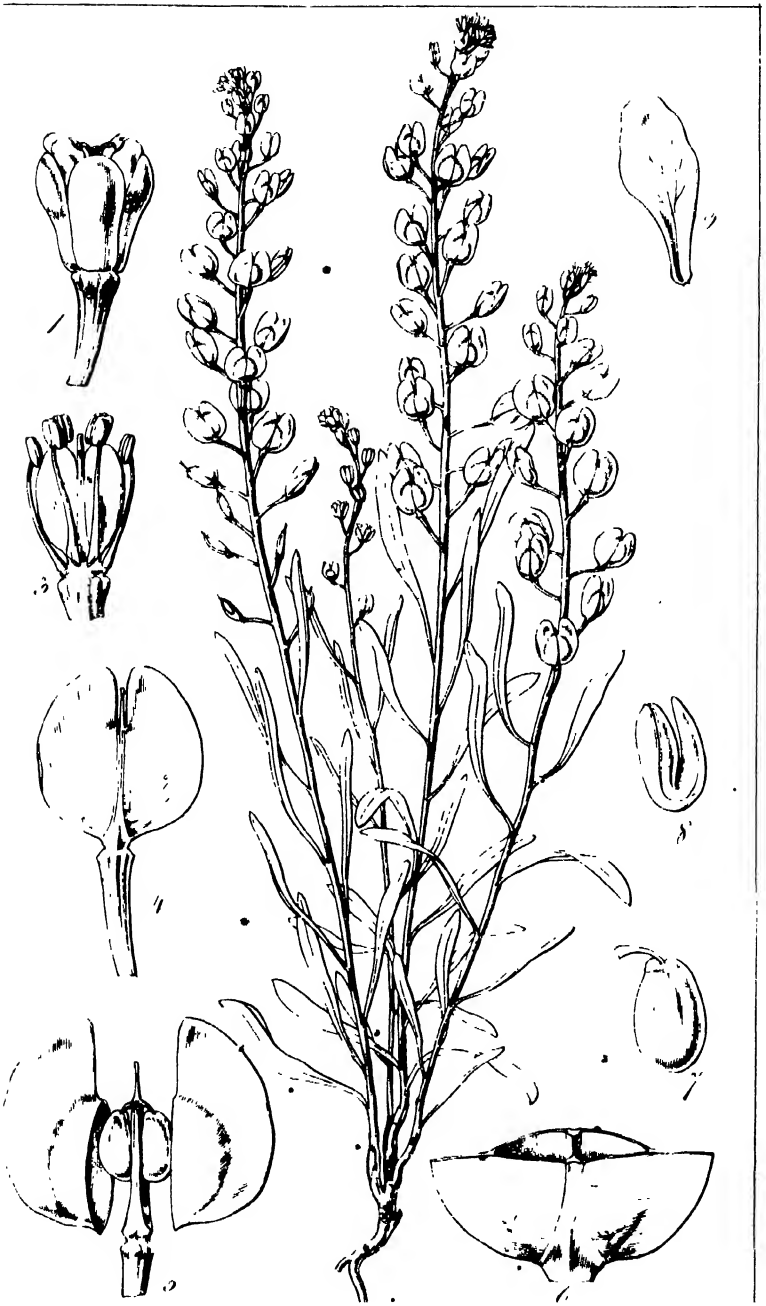
TAB. DCLVI.

Acrostichum (Elaphoglossum) Tambillense. *Hook.*

Caudice crasso descendente fibrilloso superne copiose squamoso, frondibus cæspitosis subcoriaceis glabris nudiusculis, sterilibus oblongo-ovatis tenui-acuminatis basi obtusis rarius oblique læviter decurrentibus, fertilibus 6-ties minoribus lanceolatis acutis, venis (utrinque) parallelis obsoletis internis, stipite frondes vix superante gracili nudo.

Hab. Sides of ravines, Tambillo, near Quito. *Dr. W. Jameson.*

The caudex of this species resembles a true rhizoma, short, thick, woody, descending, scarcely oblique, clothed with abundant fibres, of which many are 2-4-inches long, branched, black and hairy; the top of the caudex is nearly an inch wide, and clothed with a dense mass of shining, dark brown, subulate scales, from which the stipites spring, several near each other in a cæspitose manner. Sterile fronds 3-4 inches long, with a finely acuminated point, and a very obtuse base. The fertile fronds are many times smaller, lanceolate, acute, rather than acuminate, clothed beneath with pale, yellow brown capsules, the costa, and often a space on each side the costa bare. Seen under a microscope, the stipites sometimes, as well as the fronds beneath, exhibit minute, glandular, brown dots or scales, not visible to the naked eye.



TAB. DCIX.

Lepidium rotundum. *De Cand.*

Glabrum, bienne, caule erecto basi ramoso, foliis lineari-spathulatis obtusis, floribus parvis demum racemosis, sepalis obovatis obtusis petala subæquantibus, siliculis orbicularibus plano-convexis lato-alatis profunde angusto-emarginatis, lobis obtusis, stylo libero sinu breviore.

Lepidium rotundum. *De Cand. Prodr.* 1. *p.* 205.

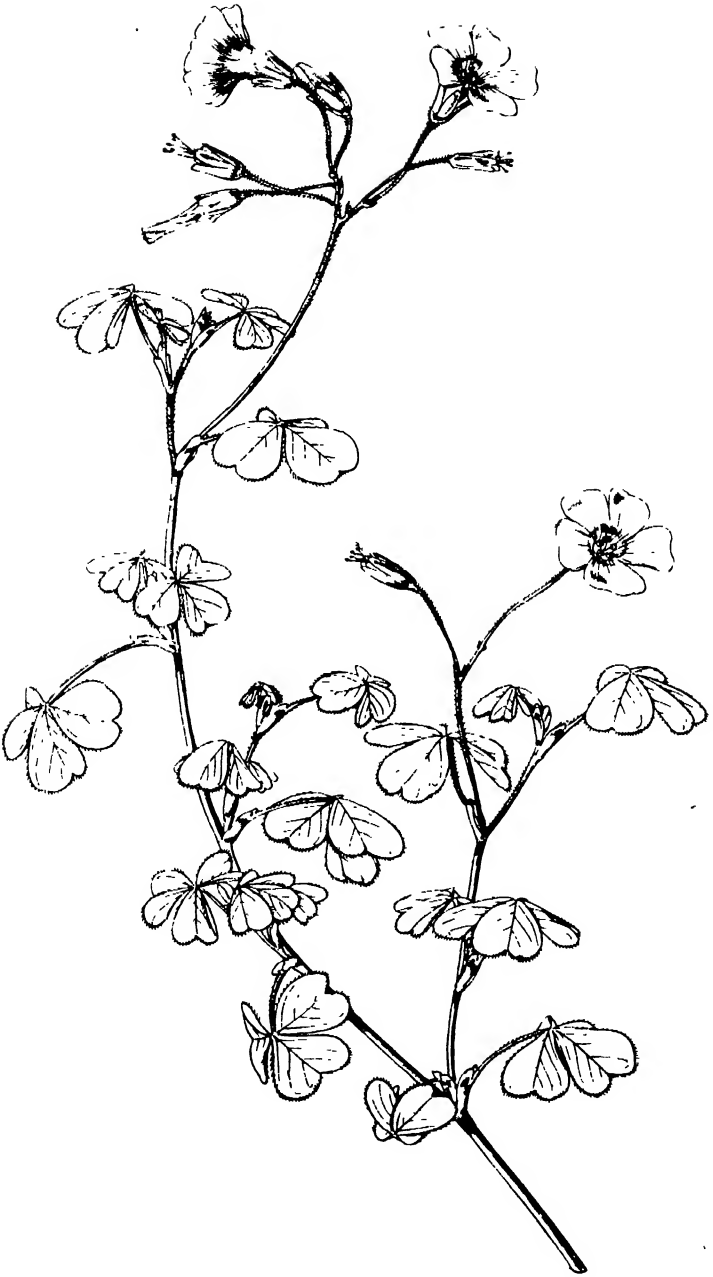
Lepia rotunda. *Desv. Journ. Bot.* 3, *p.* 166 *and* 181.

Hab. King George's Sound, (*Herb. Mus. Par.*) Swan River, Australia, *Mr. Drummond, n.* 4.

Radix biennis, subfusiformis, flexuosa, superne in ramis plurimis, erectis, simplicibus, vel ad basin, divisa. *Folia* alterna, lineari-spathulata, integerrima, uninervia, glabra. *Flores* corymbosi, demum, planta fructifera, in racemis elongatis extensi, parvi. *Pedicelli* breves, demum elongati, superne incrassati. *Sepala* obovata, obtusa, glaberrima. *Petala* spathulata vix calyce longiora. *Stamina* 6, didynama, corollam æquantia. *Ovarium* obcordatum staminibus brevius. *Siliculæ* orbiculares plano-convexæ (hinc planæ v. subconcavæ inde convexæ) latissime alatæ, apice usque ad loculos anguste profunde emarginatæ. *Stylus* liberus sinu brevior. *Semen* quovis loculo unicum, pendulum, obovatum. *Cotyledones* ovatæ, incumbentes.

This is quite different from the *Lepidium Novæ Hollandiæ*, Desv. which is allied to *L. Piscidium.*

Fig. 1. Flower. *f.* 2. Petal. *f.* 3. Stamens and pistil. *f.* 4. Silicula. *f.* 5. The same with the valves separated. *f.* 6. Transverse section of the silicula. *f.* 7. Seed. *f.* 8. Embryo: —*magnified.*



TAB. DCLXI.

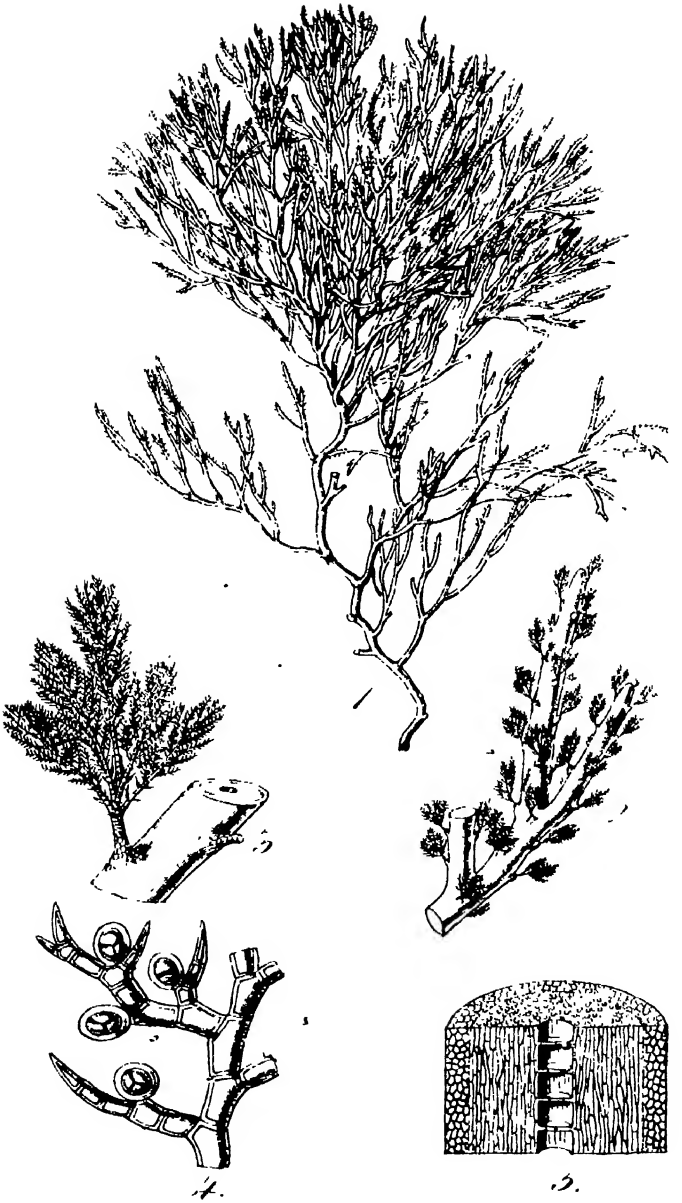
Oxalis lotoides. *H. B. K.*

Caule procumbente elongato, ramis pilosis, foliis ternatis, foliolis obcordatis emarginatis molliter appresso-pilosis margine villosis subtus glaucis, petiolis folio longioribus pilosis, stipulis adnatis majusculis fuscis, pedunculis subterminalibus elongatis 3-7 floris pedicellisque elongatis pilosis, sepalis oblongis obtusis membranaceis glabriusculis eglandulosis corolla aurantiaca duplo brevioribus, stylis stamina multo superantibus.

Oxalis lotoides. *H. B. K. Nov. Gen. Am.* 5, *p.* 421.

Hab. Quindiu, elev. of 7200 feet, *Humboldt.* Andes of Quito, *Dr. W. Jameson.*

Whole plant with a good deal the habit of *Lotus.* Stems long and decumbent. Leaves singularly glaucous beneath. Flowers orange yellow with dark streaks.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TAB. DCLXII.

Thamnocarpus. *Harv.*

Gen. Char. *Frons* teres, ramosa, intus diaphragmatibus divisa, carnosa; caro interna e fibris articulatis, longitudinalibus, implexis, externa e cellulis minutis composita. *Sphærosporæ* in stichidiis floccosis, ramosissimis, articulatis, penicillatim e frondis glandulis superficiariis ortis, nucleo triangulatim quadripartito.

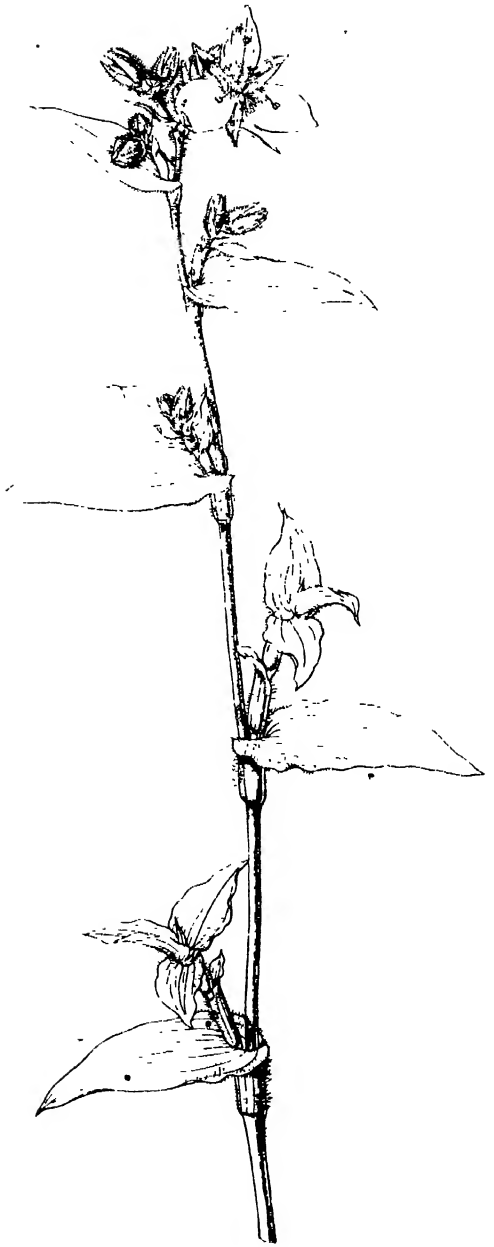
T. Gunnianus. *Harv.*

Hab. Port Arthur. Van Diemen's Land. *Ronald Gunn, Esq.*

Frond 3-4 inches high, nearly half a line in diameter, much and very irregularly branched; *stem* generally simple, and rather naked below, above frequently divided into several principal branches, which are densely set in an alternate or more generally secund manner with others which are shorter, but in other respects similar, and these again are once or twice divided and furnished with short ramuli; all the branches and lesser divisions erect, or erecto-patent, with acute axils; apices acute, but frequently broken off, and appearing truncate. Sometimes the frond is excessively branched and bushy, with tufts of ramuli issuing from the broken tips of old branches. *Substance* cartilaginous when moist, horny when dry. *Colour* a fine, clear, red, discharged in fresh water. *Structure;* the *axis* is hollow, but divided into a series of cells by transverse cellular diaphragms; the flesh of the periphery very thick, its outer surface composed of minute cellules irregularly packed together, its inner substance formed of interwoven, longitudinal, jointed fibres. The *fructification* consists of *sphærospores* (or *tri-sporous capsules*) exactly similar to those of *Callithamnion*, borne on little pencils of much branched, confervoid, articulated filaments, which issue from glands scattered on the surface of the branches and ramuli; each pencil about a line long, divided into 3 or 4 principal branches, which are clothed with pinnate ramuli (or plumules) and produce an abundance of *sphærospores* on the ultimate divisions.—A very distinct genus, and quite worthy of New Holland, the land of puzzles, presenting as it does a frond outwardly resembling *Gigartina plicata* or *Griffithsia*, with a fructification which is in itself a perfect miniature *Callithamnion* (!), thus offering a new instance of the justice of Agardh's remark, that "the lower algæ are the organs of the higher." The only other genus of *Floridee* with an analogous fructification is *Heterocladia* of Decaisne, with which our plant will form a well-characterized sub-family, called indeed by that Author Heterocladieæ, and which may almost be regarded as the analogue among *Floridee* of *Sporochnoideæ.*—*W. H. H.*

Fig. 1. *Thamnocarpus Gunnianus*; *nat. size.* *f.* 2. Apex of a branch in fruit; *magnified.* *f.* 3. Pencil of fructification; *highly magnified.* *f.* 4. Ramulus of the pencil, with sphærospores; *highly magnified.* *f.* 5. Longitudinal section of stem; *magnified.*

Tab. DCLXX



TAB. DCLXV.

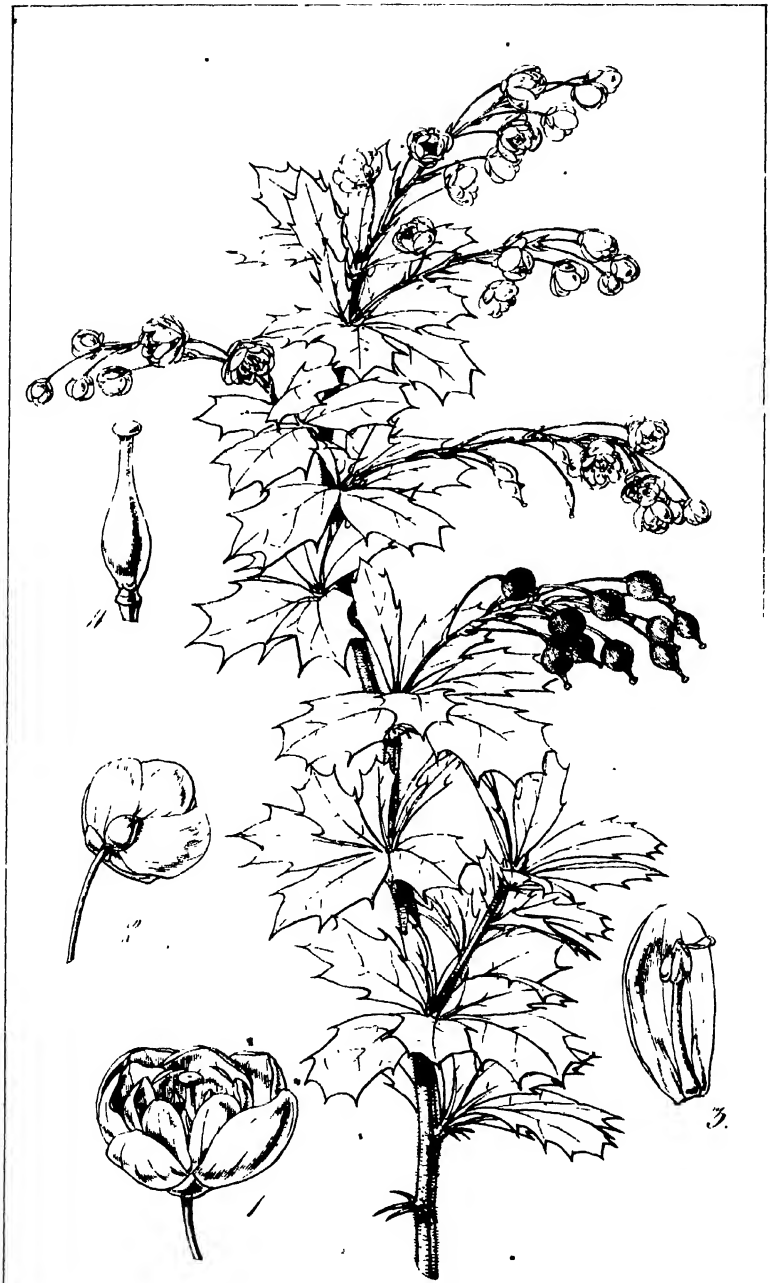
Tradescantia hirsuta. *H. B. K.*

Caule ascendente ramoso glabro, foliis oblongo-lanceolatis acuminatis subundulatis subtus præcipue vaginisque hirsutis laxis margine serrulato-scabris, pedunculis solitariis v. geminis plerumque bifloris, floribus brevissime pedicellatis bracteatis, sepalis glanduloso-hirsutis petalis (purpureis) duplo minoribus, antheræ loculis approximatis.

Tradescantia hirsuta. *H. B. K. Nov. Gen. Am. v.* 1. *p.* 263.

Hab. Mountains of New Grenada, about 6000-7300 feet, *Humboldt.* Pichincha, El Equador, 9000 feet, *Dr. W. Jameson.*

Sent by my valued friend, Dr. Jameson, under the above name; and it appears quite to agree with the character and description of Humboldt. It has an extensive range in South America. The flowers are large for the size of the plant, and the petals a very bright purple, which colour is retained in drying. The anther-cells are approximate, white; the filaments purple, with copious long white hairs at the base.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TAB. DCLXXII.

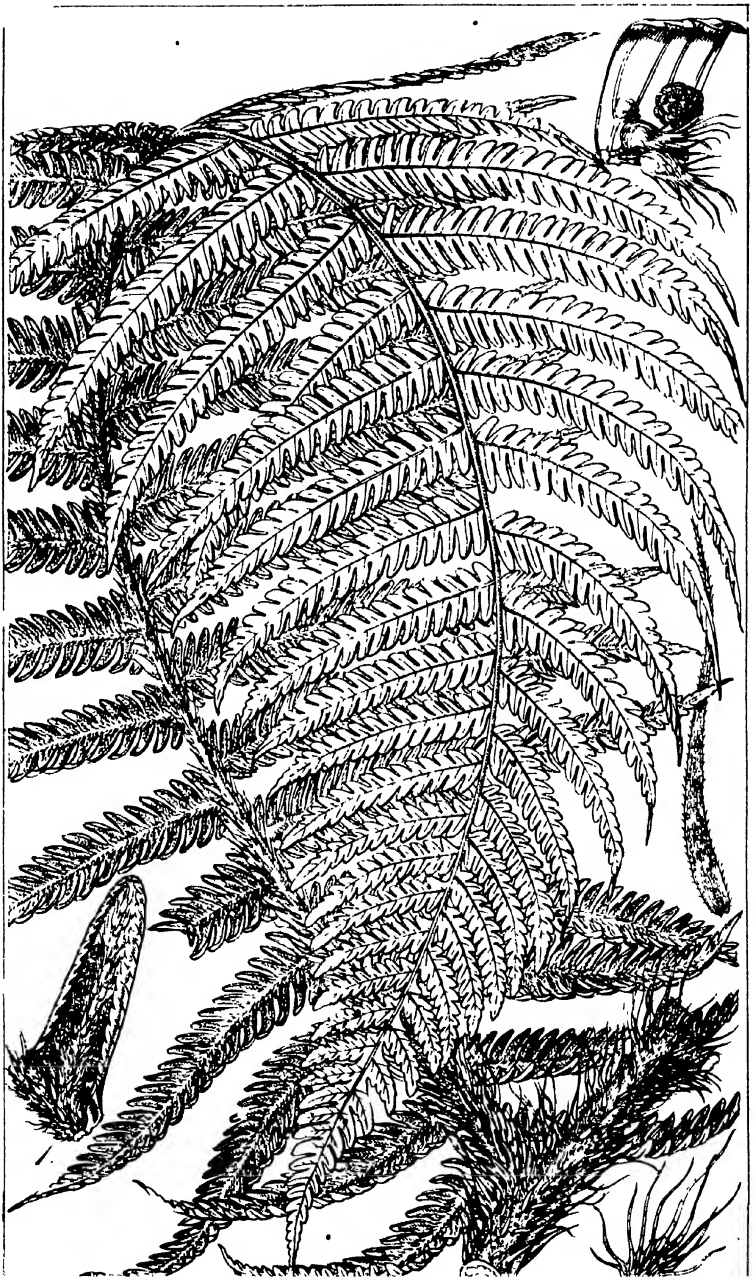
Berberis Darwinii. *Hook.*

Ramis junioribus rufo-pubescentibus, spinis brevibus palmato-partitis, foliis rigide coriaceis nitidis discoloribus cuneatis apice trifidis margine paucidentatis dentibus lobisque spinulosis, racemis folio longioribus, pedicellis flores duplo superantibus gracilibus, baccis (una cum stylo persistente) lageniformibus.

Hab. Chiloe, *C. Darwin, Esq.* Valdivia and Osorno, *Bridges, n.* 582, 585.

There is no difficulty in characterizing this well-marked species. The leaves are very constant to their form, sessile, but tapering more or less at their base, very rigid, glossy, especially above, pale and often rusty-coloured beneath. Peduncles twice or thrice the length of the leaves, reddish, as are the long slender pedicels, each of which has an ovate, concave scale or bractea at the base. Berries, probably not quite mature, almost black, with a glaucous tinge, shaped like a flask, the style and stigma representing the neck and head of the flask.

Fig. 1. Flower. *f.* 2. Back view of ditto. *f.* 3. Petal and stamen. *f.* 4. Pistil:—*magnified*



TAB. DCLXXI.

Alsophila crinita. *Hook.*

Stipite rachique primaria pallidis elevato-punctatis muricatisque, frondibus bipinnatis coriaceis, rachi supra pilosa subtus costaque dense paleaceo-crinitis, paleis nunc brevibus minutis plerumque elongatis appressis, pinnulis sessilibus anguste lanceolatis acuminatis profunde fere ad rachin pinnatifidis, segmentis anguste ovato-oblongis subobtusis paululum falcatis margine (sicco) valde recurvis subtus pallidioribus, costa venisque sæpe pilosis, venis furcatis, soris paginas inferiores fere totas occupantibus paleis crinitis tectis.

Alsophila crinita. *Hook. Sp. Fil.* 1, *p.* 54.

Hab. Ceylon. *Mrs. Gen. Walker.*

A very remarkable species, not like any with which I am acquainted. It possesses the dark, minute tuberculations on a pale stipes and main rachis, remarked by me in *Cyathea medullaris*. The main rachis, too, and the rachis of the pinnæ, although stout, are waved and flexuose; and they are beneath quite shaggy with copious, pale-coloured scales; these are of two kinds, at least upon the main rachis, some being exceedingly small, but the majority are long, slender, subulate, more or less appressed, gradually smaller on the costæ, where they partially cover and conceal the copious fructifications.

Fig. 1. Under side of a fertile segment. *f.* 2. Sorus and scales. *f.* 3. Single scale:—*magnified.*

Tab. DCLXVI.

TAB. DCLXVI.

Trichantha minor. *Hook.*

Gen. Char. *Calyx* semia-inferus? profunde 5-partitus, segmentis in lacinias 3-5 anguste lineares longissimas profunde fissis, longe ciliatis. *Corolla* tubulosa, curvata, hinc subventricosa, crinito-hirsuta, supra basin constricta, limbo 5-lobo, extus 5-appendiculatis, appendiculis lineari-clavatis patentibus, cum lobis alternantibus; *lobis* rotundatis patentibus, 2 superioribus paulo minoribus magisque approximatis. *Stamina* 4, didynama: *Antheræ* per paria connexæ. *Fructus*— ?—Frutices *scandentes* Caracasani, *radicantes, et, ut videtur, epiphyti, pilosi.* Folia *succulenta, carnosa, ovata, seu obovata, penninervia, opposita, unico minimo.* Flores *hirsutissimi, axillares, aggregati.* Pedunculi *uniflori.*

Trichantha *minor*; foliis ovatis acuminatis integerrimis ciliatis supra glabriusculis subtus hirsutis, corollæ tubo tereti, caule adpresse piloso.

Hab. Columbia, S. America. *Mr. W. Lobb.*

I know of no Genus to which this can be assimilated; and, though ignorant of the nature of its fruit and, from the paucity of flowers, unwilling to destroy them for analysis, I venture to constitute of this and the following plant a new genus, which I have named from the copious and long hairs with which every part of the flower is covered.

Fig. 1. Hair, *magnified.*

TAB. DCLXVII.

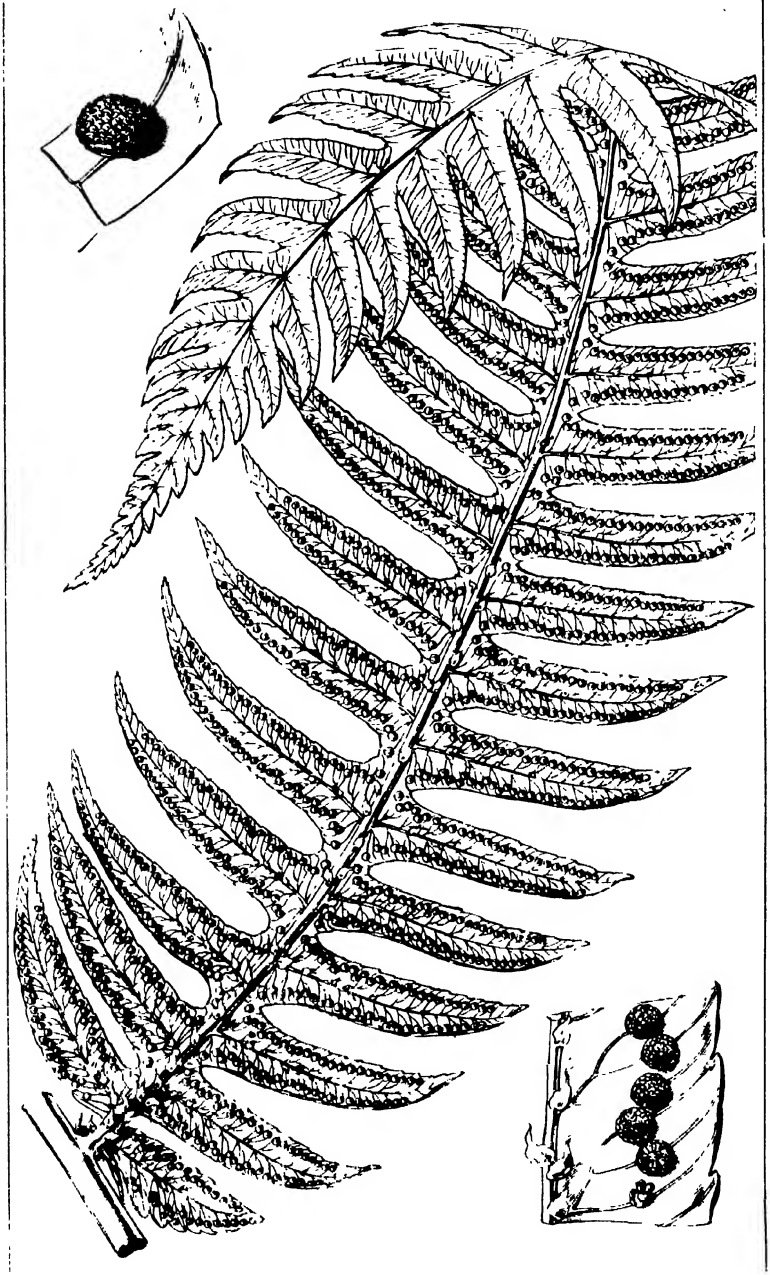
Trichantha major. *Hook.*

Foliis obovatis acuminatis ciliatis utrinque hirsutis dentato-serratis, corollæ tubo subangulato, caule patenti-piloso.

Hab. Columbia, S. America. *Mr. W. Lobb.*

A very distinct species from the preceding, with much larger leaves, broader upwards, dentato almost spinuloso-serrate, hairy on both sides, with an angular tube to the corolla, and patent hairs on the stem. The general habit of the two plants is precisely similar, the same texture of leaf, the same deeply cut segments of the calyx, and the club-shaped appendages alternating with the segments of the limb of the corolla. In both, the hairs are beautifully jointed, when seen under a microscope.

Fig. 1. One of the hairs; *magnified.*



TAB. DCLXIX.

HEMITELIA IMRAYANA. *Hook.*

Inermis? frondibus bipinnatis glabris, pinnulis amplis late oblongo-lanceolatis acuminatis profunde pinnatifidis fere ad rachin, segmentis lanceolatis acuminatis serratis, soris uniseriatis prope marginem fere ad rachin attingentibus, venis pinnatis, venulis 2-3, infimis sæpe anastomosantibus.

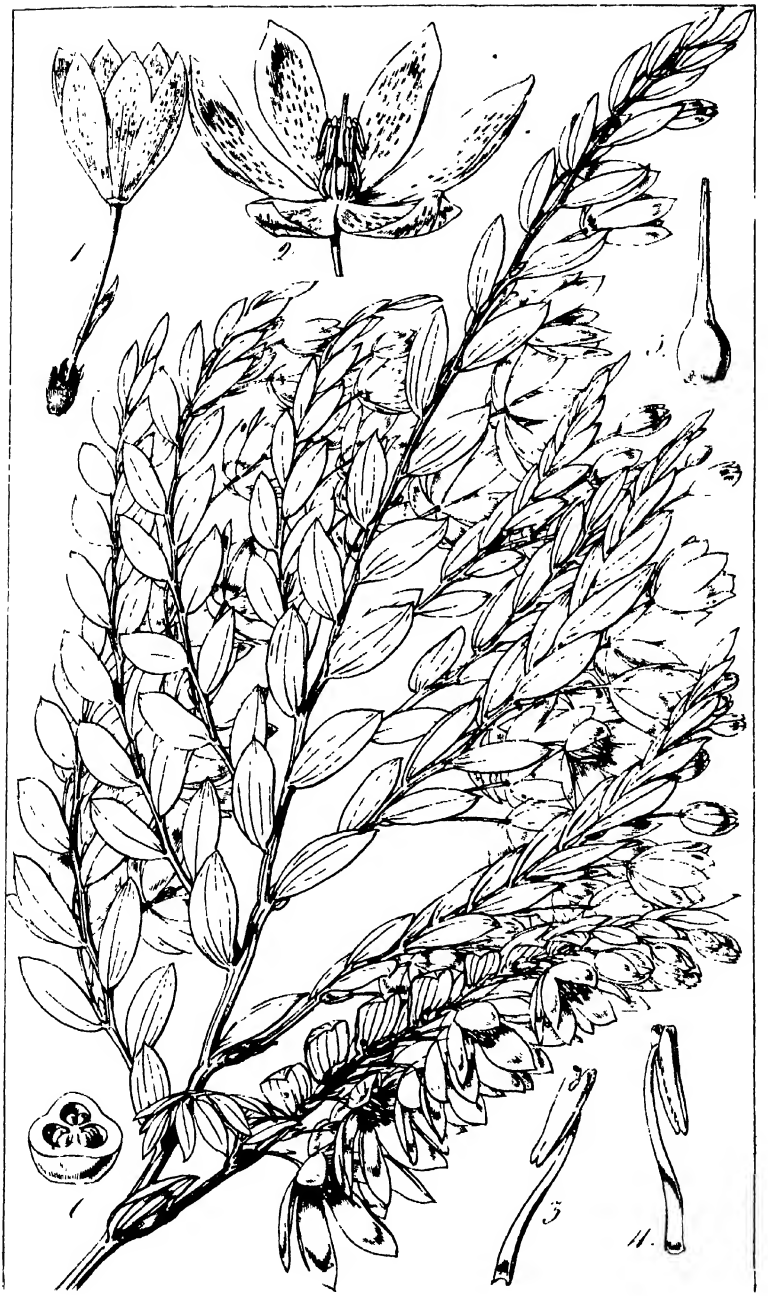
Hemitelia Imrayana. *Hook. Sp. Fil.* 1, *p.* 33.

β. segmentis grosse serratis, *Hook. l. c. p.* 34. H. serrata, *J. Sm. in Hook. Lond. Journ. of Botany, v.* 1, *p.* 662 (*name only*)

HAB. Dominica, *Dr. Imray*, 1839.—*β.* Jamaica? *Wiles?* (*Herb. J. Smith*).

At first sight this has a good deal the appearance of *H. horrida*; but the pinnæ are far narrower, smaller, 10-12 inches long, apparently always glabrous, the segments serrated, the veins much less copiously branched. The *H. serrata* of J. Sm. (doubtful as to country) may I think be safely referred to this species.

Fig. 1. Pinna; *nat. size.* *f.* 2. Portions of a segment; *magnified.* *f.* 3. Sorus :—more *magnified.*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TAB. DCLXXIV.

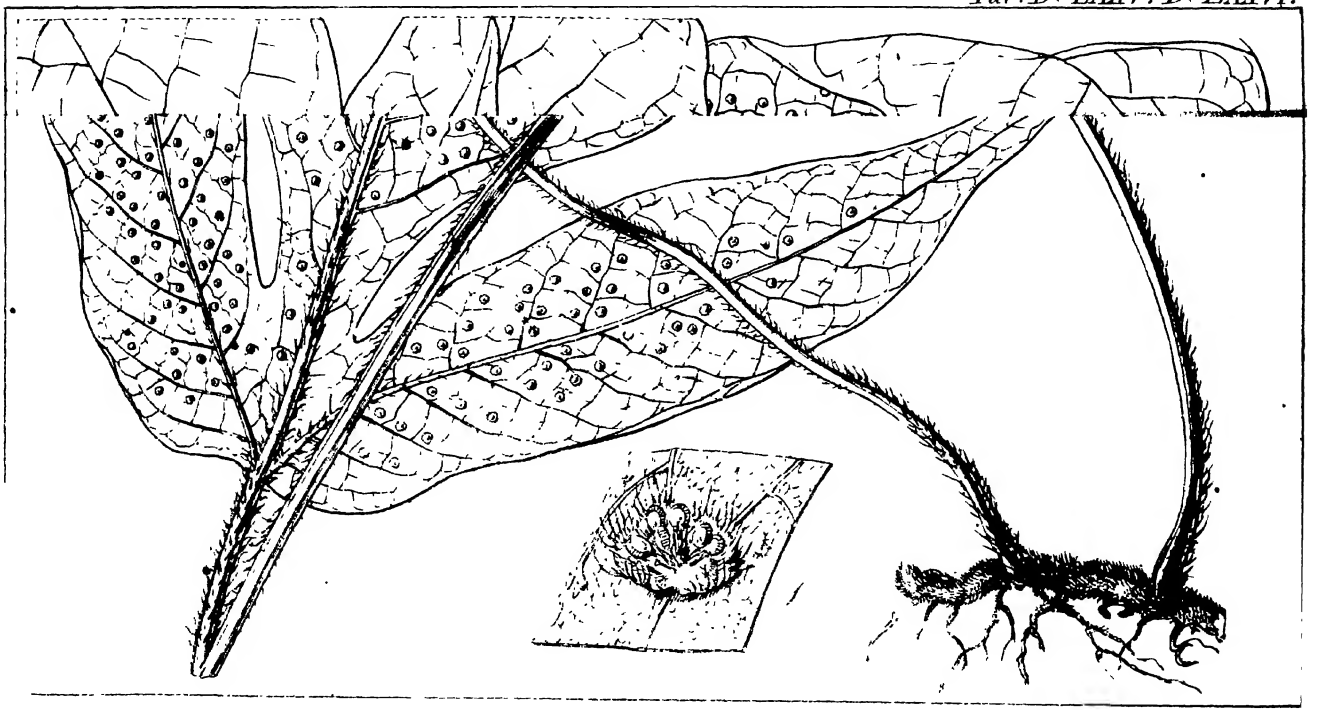
Callixene polyphylla. *Hook.*

Elata valde ramosa, foliis copiosis oblongis subovatisve mucronulatis 5-7 nerviis transversimque (sub lente) venosis subtus glaucis, pedunculis folium fere æquantibus seu eo longioribus infra medium articulatis unibractcatis, petalis acutis maculatis, antheris incumbentibus.

Hab. S. Chili. Trunks of trees near Valdivia, where it is called "Asajur," *Bridges, n.* 679. Cape Tres Montes, *C. Darwin, Esq. n.* 531-8. Isle of Huaffo, *Dr. Eights.*

Our larger specimens of this *Callixene* indicate a truly beautiful plant; they are a foot and a half long (and yet only a portion of the entire plant) with copious foliage, numerous large and probably fragrant flowers, white, it would appear, spotted with orange. It is extremely different from the old *C. marginata* of the Falkland Islands and Cape Horn, and equally so from that of New Zealand, *C. parviflora*, of this Work, Tab. dcxxxii. Besides the greater size, copious ramifications and leaves, these latter are glaucous beneath, and quite destitute of the silvery lines so conspicuous in the other species, especially in *C. marginata*; the flowers are larger, the peduncles longer, the petals elegantly spotted. In the size and spotting of the flowers, this plant exhibits a still nearer affinity with the *Luzuriaga radicans*, R. and P.; a genus scarcely distinct from the present, except in the anthers being fixed to the apex of the short filament by their base, and not versatile, and in the peduncles being 3-flowered. All the species of the genus have distichous leaves, and Dr. Hooker found them growing frequently at the roots of the trees in Tierra del Fuego, lying flat upon the trunk. The present, from Mr. Bridges' remark, would appear to be an epiphyte.

Fig. 1. Flower. *f.* 2. Ditto, more expanded. *f.* 3, 4. Stamens. *f.* 5. Pistil. *f.* 6. Section of the ovary:—*magnified.*



TABS. DCLXXV, DCLXXVI.

Hypoderris Brownii. *J. Sm.*

Hypoderris Brownii. *J. Sm. in Hook. Gen. Fil. Tab.* 1. *Hook. Sp. Fil.* 1, *p.* 57.

Hab. St. Anne's Valley, Trinidad, *Mr. Lockhart.*

Caudex repens, setaceo-squamosus, crassitie *pennæ anserinæ*. *Stipes* spithamæus et ultra, setosus. *Frons* spithamæa ad pedalem, ovato-lanceolata, membranacea, supra basin contracta, sæpius profunde triloba basi cordata, lobis lateralibus multoties minoribus, lanceolatis, acuminatis; lobo medio, seu terminali, maximo, ovato-acuminato, subsinuato, ubique integerrimo. *Costa* valida. *Venæ* parallelæ, patentes, sinuosæ; venulis reticulatis connexis, ultimis nonnunquam liberis. *Sori* globosi, venis primariis paralleli, ad angulas confluentes inserti. *Involucrum* inferum, subcyathiforme, membranaceum, reticulatum, margine patente fimbriato, subciliato.

The essential character of this genus, established by Mr. Brown, consists in the inferior involucre, like that of some *Woodsiæ*, but arising from anastomosing veins, as in the *Phymatodes* group of *Polypodium*, and in the true *Aspidium* of Presl. This fine plant appears to be quite peculiar to Trinidad, and I have seen no specimens save from Mr. Lockhart.

Fig. 1. Small portion of the frond with a sorus:—*magnified.*

TAB. DCLXXVII.

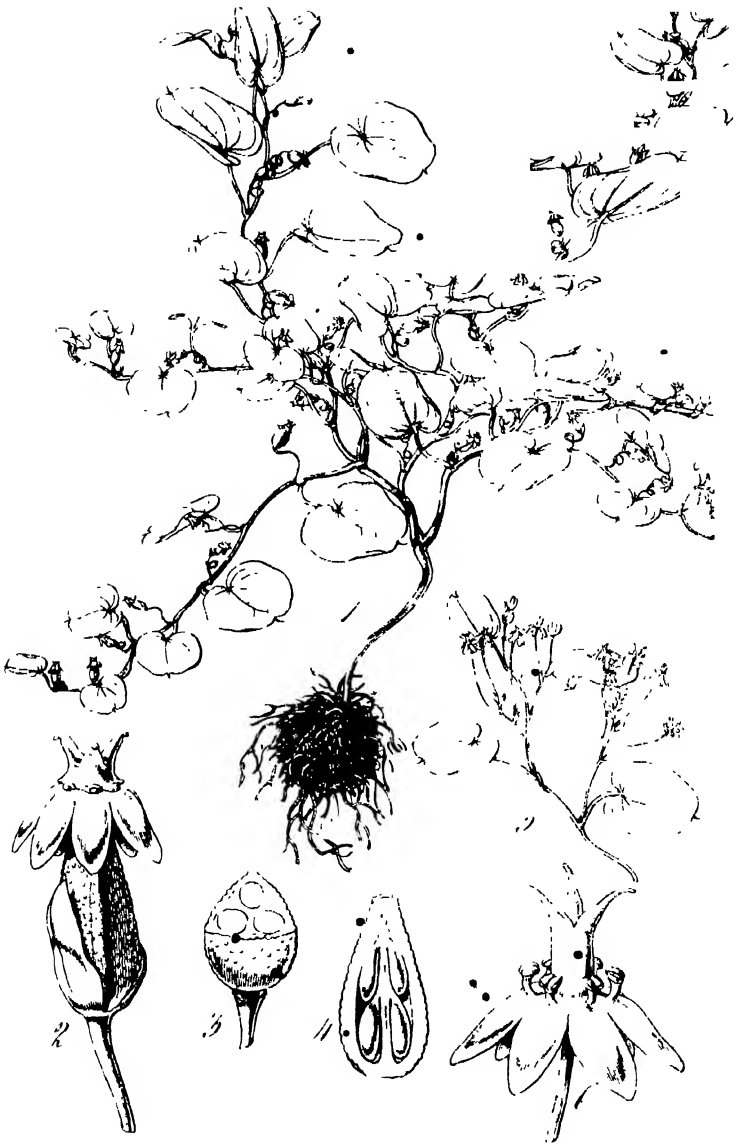
Ranunculus stenopetalus, *Hook.*

Humilis dense cæspitosus glaberrimus, foliis omnibus radicalibus longe petiolatis cordatis ternatim sectis, lobis foliolisve lateralibus ovatis integris vel inæqualiter bifidis, intermedio obovato-cuneato integerrimo v. tridentato dentibus segmentisque obtusis, scapo folio brevioribus, sepalis 5 rotundato-ellipticis concavis, petalis 5 lineari-lanceolatis prope medium nectariferis.

Hab. Shores of the Bay of Valdivia, S. Chili, growing within tide-mark, *Bridges*, *n.* 11.

This has a considerable resemblance to *R. biternatus* of the Falkland Islands and Tierra del Fuego figured at our Tab. cdxcvii, especially in size and general aspect; but in that the leaves are more compound, with their lobes or leaflets distinctly petiolulate, and the petals are 6-8. It approaches still nearer to *R. acaulis*, Banks and Sol., and Hook. fil. Fl. Antarct. Tab. 2, from New Zealand and Lord Auckland's Islands, especially in the form of the leaves; but that species has creeping or stoloniferous, filiform stems, spathulate petals, and a nectary placed above the middle of the petal.

Fig. 1. Leaf. *f.* 2. Flower. *f.* 3. Outside view of a flower, showing the calyx. *f.* 4. Petals;— *magnified.*



TAB. DCLXXVIII.

Dioscorea pusilla, *Hook.*

Nana herbacea, tubere subrotundo undique fibroso, ramis patentibus diffusis, foliis petiolatis cordatis retusis mucronatis 7-9-nerviis, pedunculis axillaribus, masc. 3-5-floris, fœm. subunifloris vix folium superantibus, flore fœmineo basi bibracteato.

Hab About Valparaiso, *Bridges, n.* 166. *Cuming, n.* 686. (or 886?)

Radix: tuber subrotundum, copiose fibrosum. Caulis debilis, subpalmaris, filiformis, ramosus; ramis diffusis, vix scandentibus, flexuosis. Folia alterna, petiolata, subrotundo-cordata. Pedunculi axillares, solitarii; *masc.* 2-5-flori, pedicellis elongatis gracillimis, basi bracteatis; *fœm.* plerumque uniflori, apice sub ovario bibracteati, bracteis ovatis membranaceis, appressis. Flores parvi, inconspicui: *masc.* perianthium profunde in 6 lacinias ovatas demum reflexas fissum. Stam. 6, singulo ad basin singulæ laciniæ: Filamenta brevissima: Antheræ subrotundæ. Ovarii rudimentum nullum infra perianthium: supra ovarium abortivum crassiusculum, cylindraceum: Styli 3 patentes subulati.—*Fœm.* Perianthii tubus ovario adnatus, triangularis, elongatus, superne attenuatus; limbus 6-partitus ut in masc. Staminum rudimenta ad basin limbi calycini. Styli 3 lato-subulati, patentes, basi in columnam uniti.

The smallest of all the hitherto discovered species of this extensive genus, and only known to me from the specimens communicated by the two collectors above-mentioned, and from living plants in Mr. Veitch's Nursery.

Fig. 1. Female plant; *nat. size.* *f.* 2. Flower. *f.* 3. Transverse section of ovary. *f.* 4. Vertical ditto. *f.* 5. Portion of a male plant. *f.* 6. Male flower.—All but *f.* 1 & 5, *magnified.*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TAB. DCLXXX.

Stellaria decipiens, *Hook. fil.*

Glabra, caule decumbente dichotome ramoso, foliis recurvis omnibus (etiam supremis) petiolatis obovato-rhombeis acutis apice callosis carnosulis siccitate punctis minutis elevatis asperis, petiolis subciliatis, pedunculis di-trichotomis (rarius unifloris) folia plerumque superantibus ad furcaturam pedicelloque unico medium versus 2-bracteatis, bracteis ovatis acutis scariosis albidis, petalis 5 bipartitis calycem æquantibus interdum brevioribus v. nullis filamentisque ima basi dilatatis fere hypogynis, stylis 3.

Stellaria decipiens, *Hook. fil. Fl. Antarctica, v.* 1, *p.* 7.

Hab. Lord Auckland's and Campbell's Islands; common on the low grounds, especially in the woods, and near the sea.

Caules tetragoni, e basi valde ramosi, filiformes, 3-5 unc. longi. *Folia* carnosula, 3-5 lin. longa, obovata seu rhomboidea, hinc inde siccitate minute tuberculata. *Petioli* 1-3 lin. longi, latiusculi. *Pedunculi* folio plerumque longiores, solitarii, raro uniflori, bifidi seu trifidi; ramis inæqualibus. *Petala* sæpe 0.

In many respects this agrees with the S. *uliginosa*, Murr., and more particularly in the size and arrangement of the inflorescence; but the stems are always decumbent, the leaves all petiolate, very patent or recurved, and not at all broader, or ovate, at the base; the callous apices are common to both species. The peduncles generally bear two pedicels, which have a pair of bracts at the base, and a pair on one of the pedicels; whereas in *S. uliginosa* the peduncle is trichotomously divided, with the intermediate pedicel only destitute of bracts. The styles seem to be constantly three, and the stamens and petals are less decidedly perigynous than in the latter plant. In form, the leaves resemble those of *S. media*, With.; but the inflorescence is very different, and the stem wants the alternate line of hairs.—*J. D. H.*

Fig. 1. Expanded flower. *f.* 2. Petal. *f.* 3. Stamen. *f.* 4. Pistil;—*magnified.*


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TAB. DCLXXXIII.

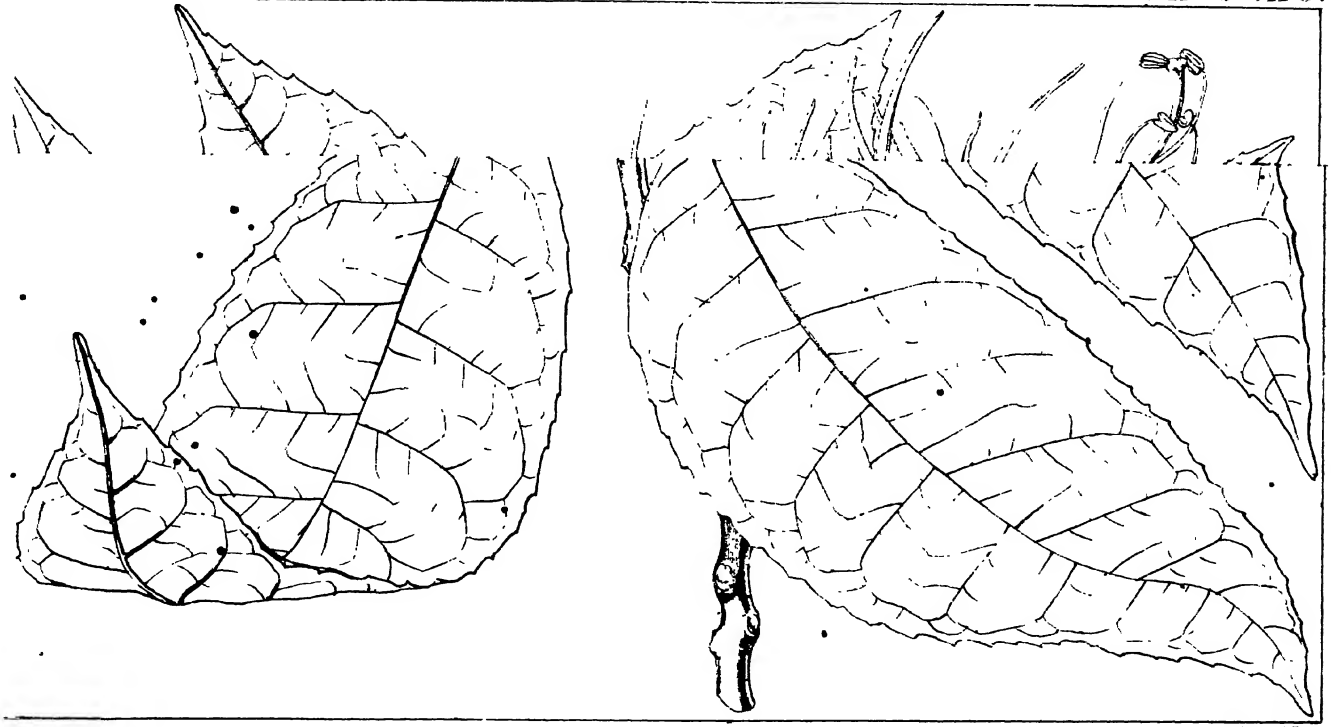
Loranthus albiflorus, *Hook.*

Foliis subopppositis lato-lanceolatis acuminatis integerrimis coriaceis basi in stipitem perbrevem decurrentibus, paniculis compactis axillaribus folio brevioribus, ramulis trifloris, bracteis minutissimis squamæformibus, petalis 6 e basi ad medium erectis approximatis dein reflexis, filamentis basi liberis, antheris ovatis subsagittatis mucronato-acutis dorso affixis, stylo longitudine staminum apice obliquo.

Hab. Andes of Quito, elev. 8500 feet, *Dr. W. Jameson.*

I do not find this anywhere described. It must, in a recent state, be a very handsome species, loaded with its copious panicles of rather large white flowers, shorter, indeed, than the leaves, but very conspicuous from their number, arising as they do from the axils of all the upper leaves. The anthers are large and versatile, or attached by their back to the apex of the filament.

Fig. 1. Flower. *f.* 2. Calyx and Pistil. *f.* 3. Anther;—*magnified.*



Allan & Ferguson lith. Glasgow

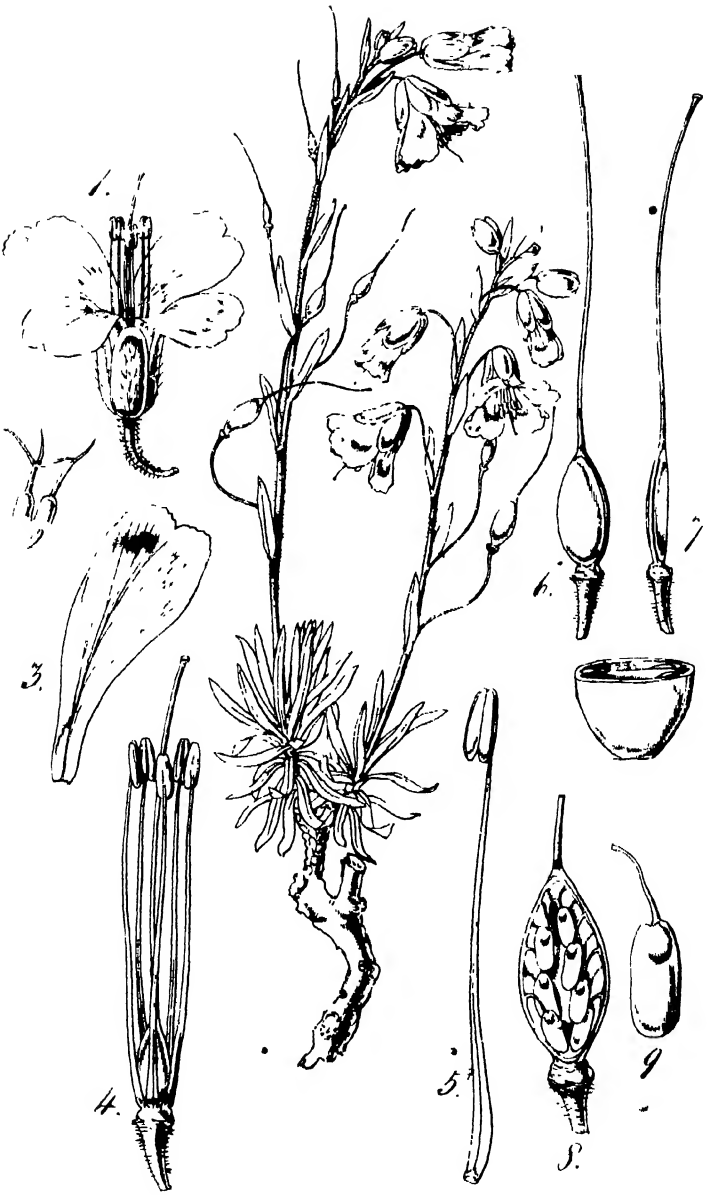
TABS. DCLXXXIX, DCXC.

Conradia calycosa, *Hook.*

Frutiçosa glabra, foliis oblongis serratis lævibus petiolatis basi acutis apice acuminatis subtus discoloribus, pedunculis axillaribus solitariis unifloris folio sublongioribus, laciniis calycinis subulatis longissimis corollam obliquam subcampanulatam superantibus, staminibus styloque longe exsertis, capsula elongata cylindraceo clavata sulcata.

Hab. Jamaica; Sedburgh, Manchester, *Mr. Purdie.*

This is a very fine and undescribed species of *Conradia* (Mart. not Nutt.) with large flowers, solitary on each peduncle, remarkable for the great length of the calycine segments, which much exceed the corolla, and the very protruded stamens and style. It forms a shrub, 5 to 10 feet high, according to Mr. Purdie, flowing copiously in December. Leaves 46 inches, long, firm, but rather membranaceous, glabrous, smooth to the touch, pale, and sometimes rather rusty beneath, where the pinnated veins are prominent and darker coloured, and the veinlets are reticulated. Petioles an inch or an inch and a half long. Peduncle rather stout, about as long as the leaf, but including the flower (for the calyx with the tube often measures 2½ inches longer.) The club-shaped sulcated capsules, with the long persistent segments of the calyx (resembling the legs of some insect) have a singular appearance.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TAB. DCXCII.

Leptonema, *Hook.*

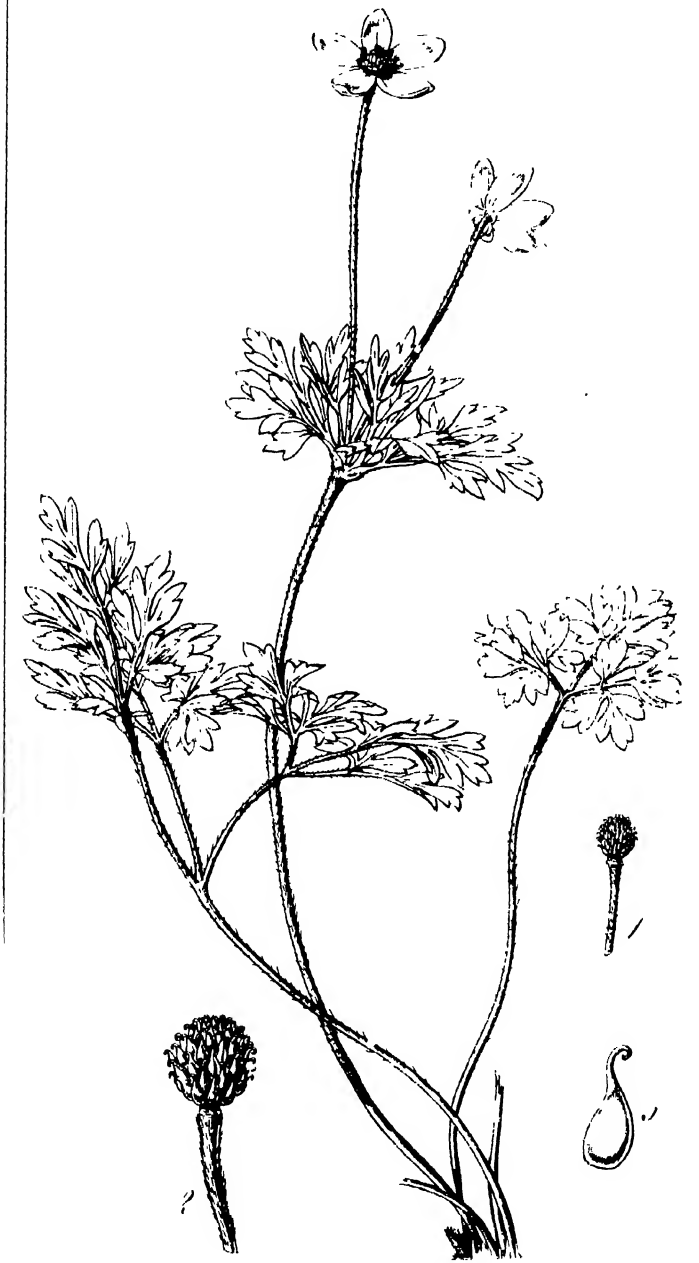
Gen. Char. *Sepala* magna, ovalia, erecta, concava, herbacea, obtusa, margine membranacea. *Petala* obovato-cuneata, in unguem attenuata, demum superne patentia, emarginata, eroso-serrata, calycem duplo superantia. *Stamina* 6, quorum 4 paulo longiora, calycem fere æquantia. *Filamenta* elongata, gracilia, filiformia, edentula, basi latiora. *Antheræ* ovales, paulo supra basin affixæ · *Ovarium* sessile, ovatum, plano-compressum, biloculare, *loculis* subsexovulatis, *ovulis* pendulis; *podospermis* elongatis. *Dissepimentum* integrum. *Stylus* longissimus, gracilis, filiformis, petala superans. *Stigma* capitatum. *Fructus* immaturus ut in ovario, *stylo* longissimo persistente terminatus.—Fruticulus *lignosus* Novæ Granatensis. Folia *ramulos breves terminantia, linearia, subcarnosa, integerrima, glabra; hi* ramuli *in pedunculos floriferos 4-5-unciales prolongati sunt.* Flores *racemosi, remoti, bracteati.* Bracteæ *folia simulantes.* Pedicelli *graciles, demum fere unciales, erecto-patentes.* Flores *cernui, subcylindracei, magni.* Petala *in sicco flavicantia.* Pedicelli calycesque *parce pilosi, pilis simplicibus vel apice ramosi, in glandulam seu vesiculam oblongam impositi.*

Leptonema *Lindeni.*

Hab. New Grenada, *Linden* (1842-3) *n.* 1433.

Although unacquainted with the mature fruit of this plant, I can have little hesitation in considering it a hitherto undescribed genus; in habit like none that is known to me. In my single specimen (here represented) the lower portion is thick and woody, and even knotted. Above, it divides into short branches having closely-placed leaves, and elongated into racemes of flowers which are of a cylindrical form. The large size of the calyx and corolla are very unfrequent in the natural family to which the plant belongs. The great length of the filaments of the stamens and styles, too, is remarkable. The young fruit is singularly compressed, even flattened; in that state, perhaps more resembling that of *Draba* than anything else. The name alludes to the long slender filaments and style.

Fig. 1. Flower. *f.* 2. Hairs and glands from the calyx. *f.* 3. Petal. *f.* 4. Stamens and pistil. *f.* 6, 7. Pistils. *f.* 7. Transverse section of an immature fruit. *f.* 8. Immature silicula with a valve removed. *f.* 9. Immature seed and seed-stalk:—*magnified.*



TAB. DCLXX.

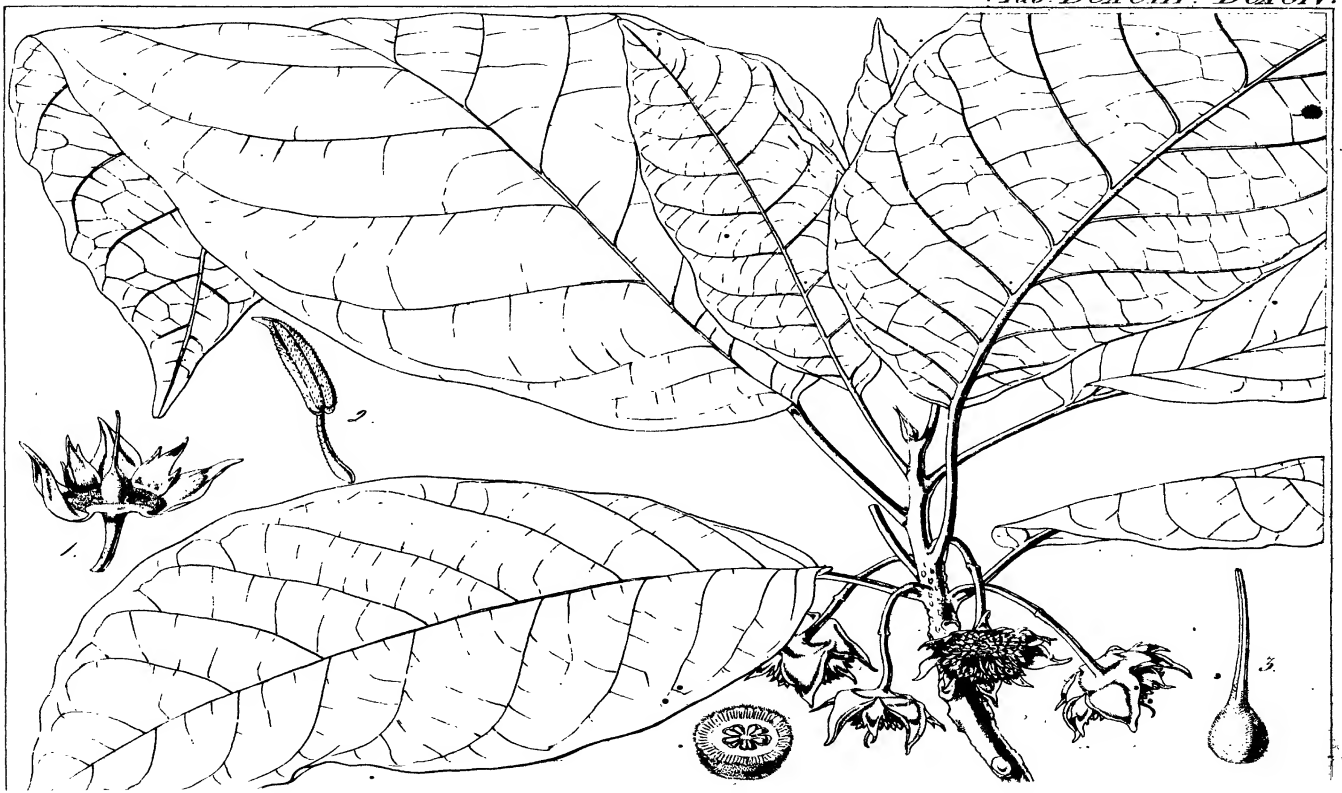
Anemone Jamesoni. *Hook.*

Subsericeo-hirsuta, radice repente, foliis omnibus radicalibus longissime petiolatis triternatim sectis, segmentis primariis longi- secundariisque brevi-petiolulatis ultimis cuneatis bi-trifidis lobis acutis, involucri foliolis petiolatis triternatim sectis, segmentis oblongis obtusiusculis superne latioribus, pedicellis binis, sepalis 5 ovalibus obtusis extus medio piloso-sericeis, capitulo globoso glabro, carpellis ovatis stylo subulato apice uncinato terminatis.

Hab. Hitherto found only on the mountain of Pillzum, Andes of El Equador, at an elevation of 12,000 feet above the level of the sea, *Prof. W. Jameson* (*n.* 86).

A new and very distinct species of *Anemone*, most allied perhaps to *A. triternata;* but differing from it in its much larger size, a span and more high, its petiolated involucral leaves, the few (five, not 10-12) sepals, their figure, and the short, globose, glabrous head of carpels, each tipped with a hooked, subulate style.

* *Fig.* 1. Head of carpels; *nat. size.* *f.* 2. The same; *magnified.* *f.* 3. Single carpel:—more *magnified.*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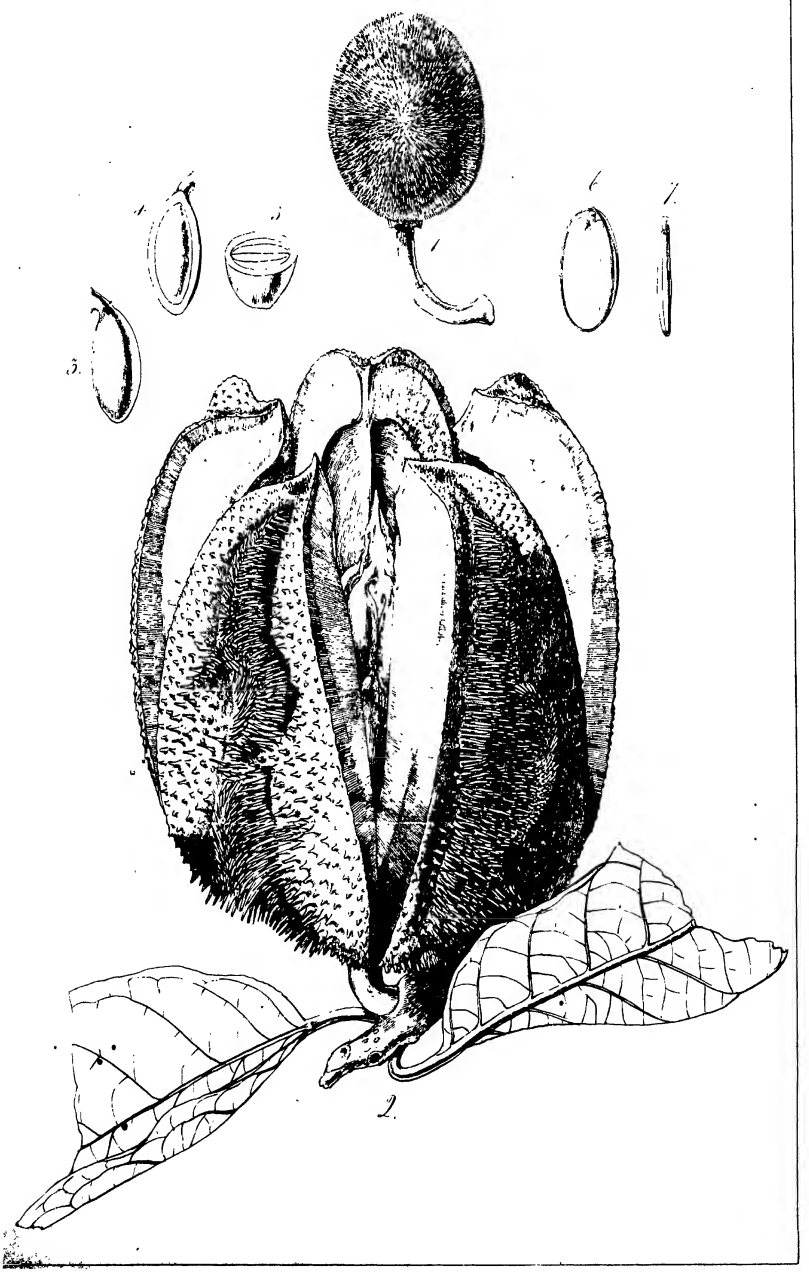
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